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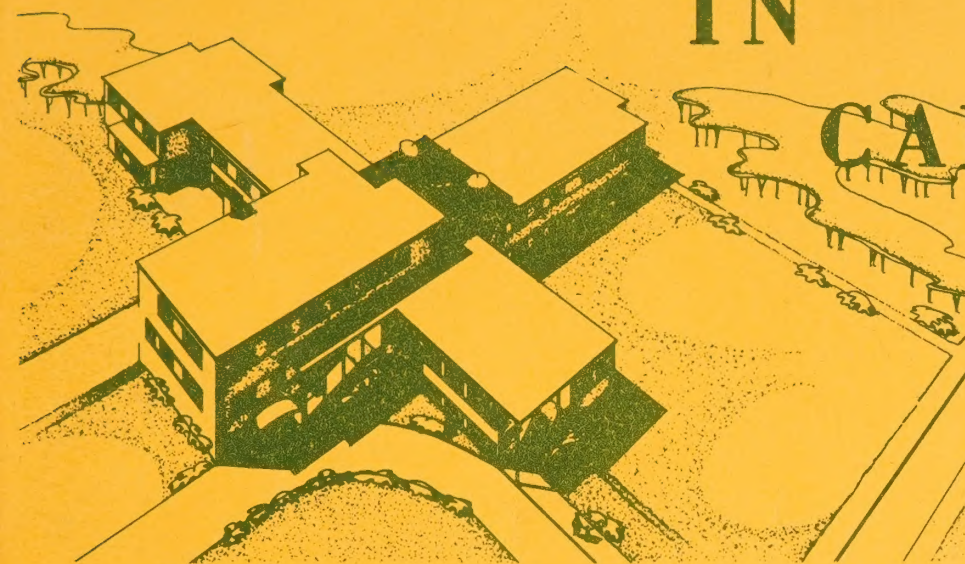
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HOSPITALS IN CANADA



General Series
Memorandum No.10



Research Division
DEPARTMENT OF NATIONAL HEALTH & WELFARE
Ottawa, September 1955.

HOSPITALS IN CANADA

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FOREWORD

This bulletin has been prepared as a reference document for persons interested in the broad picture of hospital services in Canada. It provides a comprehensive analysis of data on all types of hospitals and a detailed study of active and chronic treatment beds in Canada during the post-war years, including information on bed facilities, personnel, utilization and finances in general and allied special hospital, and a discussion of acute and chronic hospital bed requirements.

While originally prepared as a Chapter of the volume Canada's Health Services, to be published in 1955 by the Research Division, it was believed that there would be sufficient interest in this account of hospital services to justify its separate publication as a bulletin for the special use of those interested in hospital problems in Canada.

Data for this document were derived from provincial health survey reports, publications of the Dominion Bureau of Statistics and research carried on within the Division. Provincial health departments gave helpful assistance in supplying supplementary data and in reviewing the first draft of the report. Thanks are also due to Dr. W. Douglas Piercey, Executive Director of the Canadian Hospital Association, to officers of the Department of National Health and Welfare for their careful reading and helpful comments on the report, and to Mr. B. Blishen of the Dominion Bureau of Statistics for his constant aid and advice during the preparation of the manuscript.

The report was prepared in the Health and Rehabilitation Services Section of the Division by William A. Mennie.


Joseph W. Willard,
Director, Research and Statistics Division.

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HOSPITALS IN CANADA

Hospitals today play an increasingly important role in medical practice and the provision of health services. Ranging from the small rural hospital to the large medical and teaching centre, the modern hospital is developing into a basic institution in which are centred technical facilities for the promotion of health, the diagnosis and treatment of disease and the rehabilitation of the disabled. The growing scope and complexity of hospital services have made the hospitals one of the major industries of the nation.

Although the emergence of the modern hospital as a major health agency is a development of the past hundred years, there have been hospitals in Canada since the earliest days of settlement. The first hospital was the Hotel Dieu of Quebec, opened over 300 years ago (1639) by a religious order. Other early hospitals were founded as shelters for the aged and infirm, orphans, vagrants and the maimed; as protection for the inhabitants of a community from communicable diseases and from the dangerously insane; and as emergency quarters to accommodate wounded and sick soldiers, sailors and marines during war time.

During the latter part of the nineteenth century, the functions of hospitals changed radically from supplying merely food, shelter and meagre medical care to special groups to the provision of skilled medical and surgical attention and nursing care to all elements of the population. Both patients and physicians came to depend increasingly upon hospital services. Numerous new medical and surgical techniques, both diagnostic and therapeutic, required elaborate and costly equipment as well as trained personnel which only hospitals could provide. Patients became more inclined to seek hospitalization because overcrowding and other circumstances in many homes combined with a shortage of suitable trained help to make home nursing care impracticable.

A gradual popular acceptance of hospitalization not only as a necessity, but as a resort of preference in case of serious illness expedited hospital growth. During the present century there has been a phenomenal increase in hospital facilities which have expanded at a very much higher rate than the growth of population over the same period. At the turn of the century there were about 20,000 hospital beds⁽¹⁾ or 3.8 beds per thousand population, whereas by the end of the year 1953 total hospital beds of all kinds numbered about 170,000 or 11.5 beds per thousand population.

This expansion has been brought about in large measure through the efforts of many voluntary organizations and public-spirited individuals. The majority of Canadian hospitals have been constructed and are operated by lay or religious groups deeply concerned with providing medical care for the sick and disabled. The voluntary non-profit hospital has been a characteristic feature of hospital organization in Canada.

Governments, too, play an important role in hospital affairs. Traditionally, local governments have been responsible for providing hospital care for resident indigents and general financial support to local hospitals. More recently municipal authorities have become involved in local planning of hospital facilities, the direct operation of some hospitals, and in some cases the provision of prepaid hospital care to local residents. In turn, the provinces in order to provide for a better distribution of hospital facilities and integration of hospital services have developed central planning activities. Increased provincial technical and financial assistance to hospitals for construction and maintenance is also provided and in some provinces prepaid hospital care

(1) Based on Census of Canada, 1901, Vol. IV, p. 357.

programs are administered. The federal government provides hospital care to certain groups, and since 1948 has made available grants-in-aid for hospital construction, the purchase of special equipment and the training of personnel. All levels of government are engaged in a concerted effort in cooperation with the hospitals to bring high quality hospital care to all sick and disabled Canadians requiring such services.

Summary⁽¹⁾

Canada had 1,285 hospitals and 169,922 hospital beds at the end of the year 1953. Beds set up included 92,120 in general and allied special hospitals, 60,565 in mental institutions and 17,237 in tuberculosis sanatoria. Voluntary non-profit corporations, lay and religious, controlled 50 percent of all beds, government agencies operated 48 percent, and private or proprietary hospitals accounted for 2 percent.

Expansion of auxiliary special facilities has paralleled the growth of hospital beds, thus enlarging the scope of hospital service programs. In 1953, 85 percent of public general and allied special hospitals maintained out-patient services, 85 percent had radiology facilities, and 79 percent had a clinical laboratory.

Hospital personnel numbered 128,485 in 1953 representing about 2.5 percent of the total Canadian labour force. Increased numbers of specialized workers are being employed, and the overall ratio of personnel per patient day is steadily rising. In the year 1953, about 1.5 persons were required each day for every patient in general and allied special hospitals.

The total volume of hospital care of all kinds reached about 56 million days in 1953, half of which were supplied by general and allied special hospitals. Upward trends in total days of care and hospital admissions as well as in days and admissions per unit of population have continued. Days of care per thousand population in general and allied special hospitals, excluding federal hospitals, numbered 1,558 in 1953; while admissions per thousand reached 135. More than 83 percent of all births occurred in hospital and 51.5 percent of all deaths took place in hospital.

The heavy demand for hospital care has stimulated rapid expansion of hospital facilities designed for the treatment of acute conditions. Since 1948, overcrowding has been reduced, and more than 30,000 active treatment beds have been approved for construction under the Hospital Construction Grant. By the end of 1954, estimated acute rated bed capacity in the ten provinces, excluding federal hospitals, was 71,660 beds or 4.7 beds per thousand population. Calculations based mainly on the findings of provincial health survey reports suggest an overall requirement of 83,221 beds or 5.5 beds per thousand population leaving a shortage of 11,561 beds at the end of 1954. This will be reduced considerably when a further

(1) While this report presents broad data relating to all types of hospitals, detailed analysis is limited to general and allied special hospitals. For detailed information on mental hospitals, see Mental Health Services in Canada, Dept. of N.H. & W., Research Division, Memo No. 6, General Series, 1954. For detailed information on tuberculosis sanatoria, see Tuberculosis Services in Canada, Dept. of N.H. & W., Research Division, Memo No. 11, General Series, 1955.

7,843 beds, under construction early in 1955, have been completed. Additional beds will be needed, of course, to replace obsolescent facilities and to meet population increases.

Despite the increasing importance of chronic diseases, chronic and convalescent hospital facilities remain seriously inadequate. While chronic beds have increased at a faster rate than acute beds since 1948, only 4,003 such beds have been added. When beds under construction at the end of 1954 have been completed, chronic beds will number 11,764 which represents less than 50 percent of an estimated total requirement of 24,195 beds based mainly on the findings of provincial health survey committees.

Mental hospital accommodation is also in short supply. Despite some progress during the past few years, overcrowding of patients remains a problem. At the end of the year 1954, estimated rated bed capacity totalled 48,954 beds. If a conservative ratio of 5 beds per thousand population is applied, the estimated total requirement in 1954 would have been 75,840 beds. On this basis, the overall shortage totalled almost 27,000 beds, while additional beds approved for construction numbered only 7,018.⁽¹⁾

Beds set up in tuberculosis sanatoria and tuberculosis units of general hospitals totalled 18,977 in 1953, and by the following year the discharge rate was sufficient to enable most provinces to accommodate all new cases. There is every indication that when construction now in progress has been completed, the problem of supplying sanatoria beds will be largely met although some new construction may be necessary in some areas in the future to meet the needs of a growing population and to replace obsolete buildings.⁽²⁾

Federal hospitals provide services to the Armed Forces, war veterans, Indians, Eskimos, immigrants and sick mariners. The 13,385 beds in operation in 1953 were generally sufficient to meet these responsibilities, although some further facilities were undoubtedly necessary in particular areas and to replace obsolescent beds. Federal beds included 9,974 operated by the Department of Veterans Affairs, 2,113 controlled by the Directorate of Indian Health Services, 925 owned by the Department of National Defence, and 373 maintained by the Quarantine, Immigration Medical and Sick Mariners Services.

Quantitative increases of hospital facilities must be accompanied by qualitative measures to integrate hospital services and improve standards of patient care. Leadership in planning, integration and standards comes from the Canadian Hospital Association, the Catholic Hospital Association of Canada and other professional associations in cooperation with government health departments. Provincial surveys and inspection activities, and voluntary hospital accreditation programs are designed to promote high quality hospital care. An important recent development is the formation of the Canadian Commission on Hospital Accreditation, a voluntary organization whose objective is to stimulate hospitals to improve patient care.

(1) See also Mental Health Services in Canada. Dept. of N.H. & W., Research Division, Memo No. 6, General Series, 1954.

(2) See also Tuberculosis Services in Canada. Dept. of N.H. & W., Research Division, Memo No. 11, General Series, 1955.

Fundamental to all discussions of hospitals is the problem of financing hospital care, including capital costs and maintenance costs. Annual capital expenditures have risen from \$22.3 million in 1945 to \$117 million in 1954. Capital funds deriving largely from philanthropic and municipal sources in earlier years, are today supplemented by substantial provincial and federal grants. The federal-provincial Hospital Construction Grant introduced in 1948 has greatly stimulated the capital development of hospitals.

Hospital operating costs have increased by leaps and bounds reaching an estimated overall total of \$400 million in the year 1953, of which \$273 million were expended by non-federal general and allied special hospitals. Methods of financing these costs have been changing; voluntary and public pre-payment plans are of increasing significance. In the year 1953, the estimated total income of non-federal general and allied special hospitals was distributed by source as follows: direct patient payments-38 percent, provincial governments - 29 percent, voluntary prepayment plans - 22 percent, municipal governments - 6 percent, other sources - 4 percent, federal government - 1 percent. Four provinces have introduced public prepayment plans, while others provide maintenance grants and/or payments on behalf of indigent patients.

1. Hospital Bed Facilities⁽¹⁾

Hospital beds of all types, including beds in mental hospitals and tuberculosis sanatoria, number 169,922 at the end of 1953, enough to accommodate 1.2 percent of the Canadian population on any particular day. This total is the product of tremendous expansion in recent years, illustrated below in Chart 1. Altogether, hospital beds increased by 36,517 or 27 percent from the 133,405 beds set up for use in 1946, as shown in Table 1. The growth of population over the same period has been somewhat less - an increment of about 20 percent. Consequently, the number of beds per thousand population has risen from 10.9 in 1946 to 11.5 in 1953.⁽²⁾

Study of hospital construction assisted by the federal-provincial Hospital Construction Grant introduced in 1948,⁽³⁾ shows that the number of hospital beds is continuing to increase. As indicated in Table 2, a total of 54,232 patient beds had been approved for construction up to December 31, 1954,⁽⁴⁾ of which about 38,000 had been completed at that time. By adding 6,485 beds completed during 1954 and 16,269 beds under construction or planned at the end of 1954 to the 170,000 beds existing at the end of 1953, and by allowing for 10 percent of new construction to replace obsolescent beds, it may be estimated that hospital beds will number about 190,000 when currently planned construction has been completed.

-
- (1) The following section describes existing hospital bed facilities of all types. Acute general and special hospital beds and bed requirements (exclusive of Federal hospitals) are discussed later in Section 5 of this report. Chronic and convalescent beds and bed requirements are discussed in Section 6. Federal hospital bed facilities are set out in Section 7.
 - (2) With the exception of beds constructed under the Hospital Construction Grant, the hospital beds discussed in this section refer to the actual number of beds set up for use, sometimes termed the bed complement. This differs from rated bed capacity which represents the number of beds a hospital is designed to accommodate based on minimum standards of floor space per bed. Rated bed capacity is discussed further in Section 5 of this report.
 - (3) The provisions of the Hospital Construction Grant Program are set out in Section 9 of this report.
 - (4) In addition to the 54,232 patient beds for adults and children, 6,648 bassinets and 8,084 nurses' beds had been approved for construction under the grant up to December 31, 1954.

CHART I

BEDS SET UP IN CANADIAN HOSPITALS: BY CLASS OF HOSPITAL 1946 TO 1953

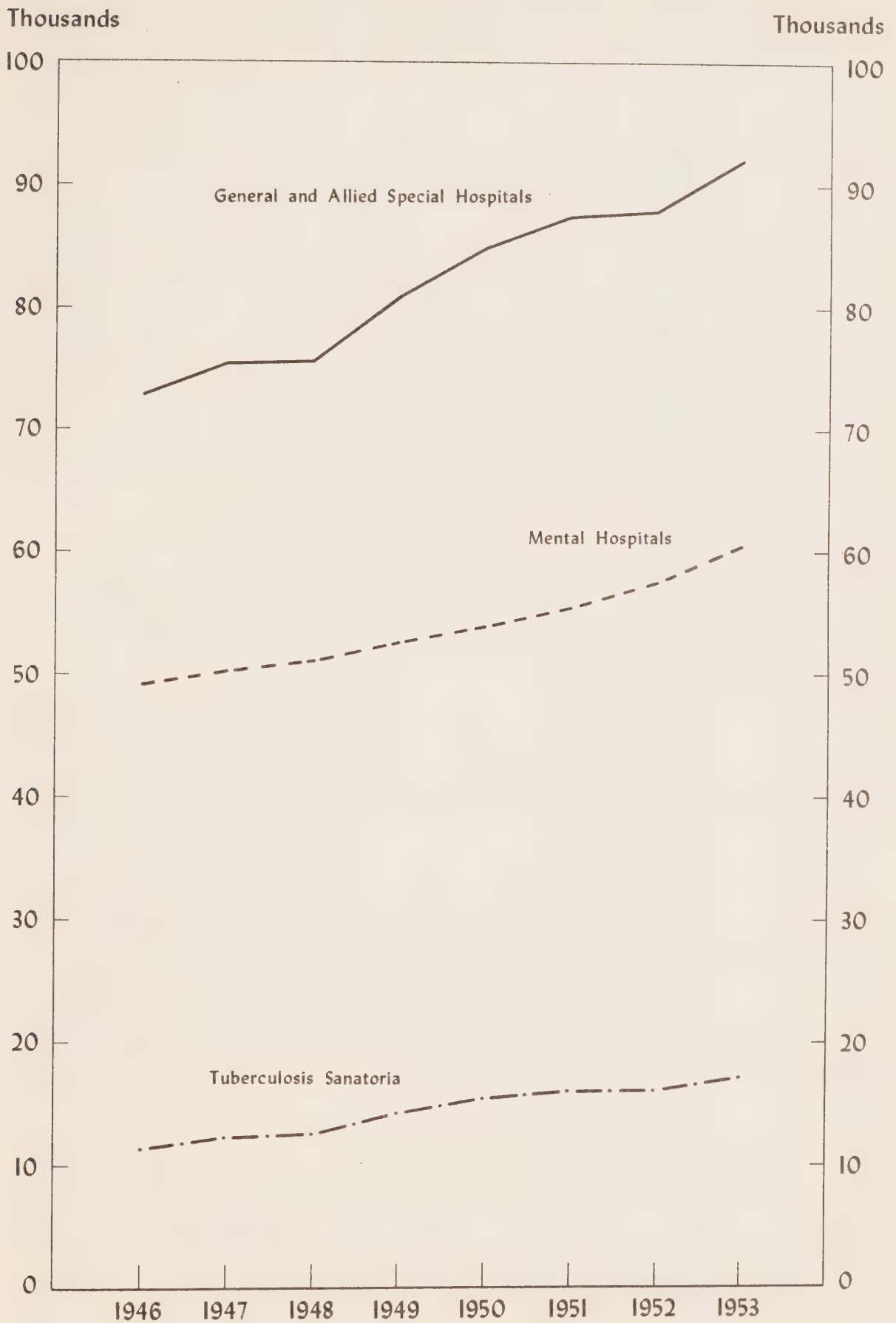


TABLE 1 - BEDS SET UP IN CANADIAN HOSPITALS: (a) BY CLASS OF HOSPITAL;
DECEMBER 31, 1946 TO DECEMBER 31, 1953 (a)

Year	General and Allied Special Hospitals (b)	Mental Institutions (c)	Tuberculosis Sanatoria (d)	All Hospitals
1946	72,829	49,163	11,413	133,405
1947	75,431	50,203	12,387	138,021
1948	75,582	51,050	12,642	139,274
1949	80,083	52,663	14,397	147,943
1950	84,869	53,957	15,527	154,353
1951	87,476	55,395	16,146	159,017
1952	87,823	57,621	16,223	161,667
1953	92,120	60,565	17,237	169,922

(a) Includes public, private and federal hospitals, as well as estimates for non-reporting hospitals in the years 1952 and 1953. Bassinets are excluded

(b) Derived from D.B.S. Annual Reports of Hospitals, 1946-1952, and Hospital Statistics, 1953. Includes estimated beds in non-reporting hospitals, 1952-53 as follows 1952, 2466 beds; 1953, 5145 beds. Also includes estimated beds set up in Newfoundland hospitals, 1949-52 as follows. 1949, 1536 beds; 1950, 1608 beds; 1951, 1679 beds; 1952, 1751 beds. Newfoundland beds were first reported to the Dominion Bureau of Statistics in the year 1953.

(c) Derived from D.B.S. Mental Institutions, 1946-1952, and Mental Health Statistics, 1953, based on number of patients in mental institutions at end of each year. Newfoundland included 1949-1953.

(d) Derived from D.B.S. Tuberculosis Institutions, 1946-1952 and Tuberculosis Statistics, 1953. Newfoundland included 1949-1953; Northwest Territories included 1950-1953.

TABLE 2. BEDS APPROVED FOR CONSTRUCTION AND ESTIMATED BEDS COMPLETED UNDER THE HOSPITAL CONSTRUCTION GRANT PROGRAM: BY TYPE OF BED, MAY 1948 TO DECEMBER 31, 1954

Type of Bed	Beds Approved to Dec. 31, 1954	Estimated Beds Completed to Dec. 31, 1953 ^(a)	Estimated Beds Completed During Calendar Year 1954 ^(a)	Estimated Beds Approved But Not Completed Dec. 31, 1954 ^(a)
Active Treatment	30,481	18,352	4,286	7,843
Chronic-Convalescent	5,158	3,199	912	1,047
Mental	14,254	5,994	1,242	7,018
Tuberculosis	4,339	3,933	45	361
All Patient Beds	54,232	31,478	6,485	16,269
Bassinets	6,648	(b)	(b)	(b)
Nurses Beds	8,084	(b)	(b)	(b)

(a) Based on review of all hospital construction grant projects. Completion dates estimated on basis of architect's certificate, or from other evidence in cases where final payment not yet made.

(b) Estimates not calculated.

Source: Records of the Health Grants Administration, Department of National Health and Welfare.

Types of Bed Facilities

Hospitals today include general hospitals which accept patients suffering from a great variety of acute and chronic conditions, and allied special hospitals which have been developed for specific groups such as the chronically ill, the convalescent, maternity patients, persons suffering from communicable diseases and the orthopaedically disabled. Other special types of hospitals exist for the care of the tuberculous and the mentally ill.

Of the 169,922 beds existing in 1953, general and allied special hospitals comprised 92,120 or more than one-half of the total as shown in Table 3 below; 60,565 or about 36 percent of the beds were in mental hospitals and 17,237 or about 10 percent in tuberculosis sanatoria. In terms of population, there were 6.2 general and allied special beds per thousand persons; 4.1 mental hospital beds per thousand; and 1.2

TABLE 3 - HOSPITAL BEDS SET UP^(a): BY CLASS OF HOSPITAL
AND BY PROVINCE, DECEMBER 31, 1953.

Province	Number of Hospitals (b)	General and Allied Special Hospitals		Mental Institutions		Tuberculosis Sanatoria		Total Beds in All Hospitals
		Number of Beds (c)	Percent of All Beds	Number of Beds (d)	Percent of All Beds	Number of Beds (e)	Percent of All Beds	
Nfld.	45	1,751	53.2	849	25.8	693	21.0	3,293
P.E.I.	9	580	56.5	296	28.8	150	14.6	1,026
N.S.	76	4,194	53.3	2,827	35.9	848	10.8	7,869
N.B.	44	2,986	53.7	1,644	29.6	931	16.7	5,561
Que.	247	21,865	49.0	17,234	38.7	5,488	12.3	44,587
Ont.	293	29,410	55.3	19,336	36.3	4,451	8.4	53,197
Man.	96	5,676	54.6	3,451	33.2	1,263	12.2	10,370
Sask.	174	6,609	54.8	4,659	38.6	803	6.6	12,071
Alta.	116	7,484	59.0	4,025	31.7	1,180	9.3	12,689
B.C.	168	10,836	58.5	6,244	33.7	1,430	7.7	18,510
N.W.T.	13	563	100.0	0	0	0	0	563
Yukon	4	166	100.0	0	0	0	0	166
Total	1,285	92,120	54.2	60,565	35.7	17,237	10.1	169,922

tuberculosis sanatoria beds per thousand; this is shown in Chart 2. Comparable data for the continental United States in the year 1953, show an overall total of 1,573,000 hospital beds; 48 percent of these or 4.7 per thousand population were in mental hospitals, 47 percent or 4.6 per thousand were in general and allied special hospitals, and only 5 percent or 0.6 beds per thousand were in tuberculosis sanatoria.⁽¹⁾

Beds in general and allied special hospitals may be classified in terms of the broad class of patients accommodated. Acute hospitals provide active treatment largely for patients with short-term diseases; such hospitals include general hospitals as well as special hospitals or units for maternity, infectious diseases and other acute conditions. Chronic and convalescent hospitals or units provide special care under medical supervision for the long-term patient. Many chronic patients are located in private nursing homes or welfare institutions which are not recognized as hospitals by provincial authorities.

Table 4 below shows the number of beds set up in all general and allied special hospitals in 1953 by type of bed. The majority of beds set up, 61,289 or 66.5 per cent, were providing general acute disease care, although undoubtedly some of these beds were regularly occupied by chronic and other special classes of patients. Special beds for maternity care numbered 10,312 or 11.2 percent of all beds; beds for treatment of communicable diseases numbering 2,236 represented 2.4 percent of the beds. Only 9.9 percent of the hospital beds or 9,113 were set up specifically for chronic patients; an additional 1,858 beds were designed for patients requiring convalescent care.

The placement of tuberculosis patients in general hospitals is a diminishing practice as the result of the development of sanatoria facilities; nevertheless, in 1953, 1,274 beds in general and allied special hospitals were set aside for tuberculosis patients in tuberculosis units. Medical opinion now seems to favour the establishment of psychiatric units in general hospitals for short-term treatment, and increasing provision is being made for psychiatric patients. At the end of 1953, psychiatric wards or units contained 660 beds, 0.7 percent of all beds.

Ownership of Hospitals

Most Canadian hospitals are public hospitals, operated on a non-profit basis and open to all patients regardless of ability to pay. While a substantial number of public hospitals are operated by provincial and municipal governments, the majority are owned by voluntary lay or religious corporations. Hospitals operated by the federal government are limited to special groups in the population. Private or proprietary hospitals, which ordinarily restrict admissions to patients paying for the care provided, are fairly numerous but are small in size.

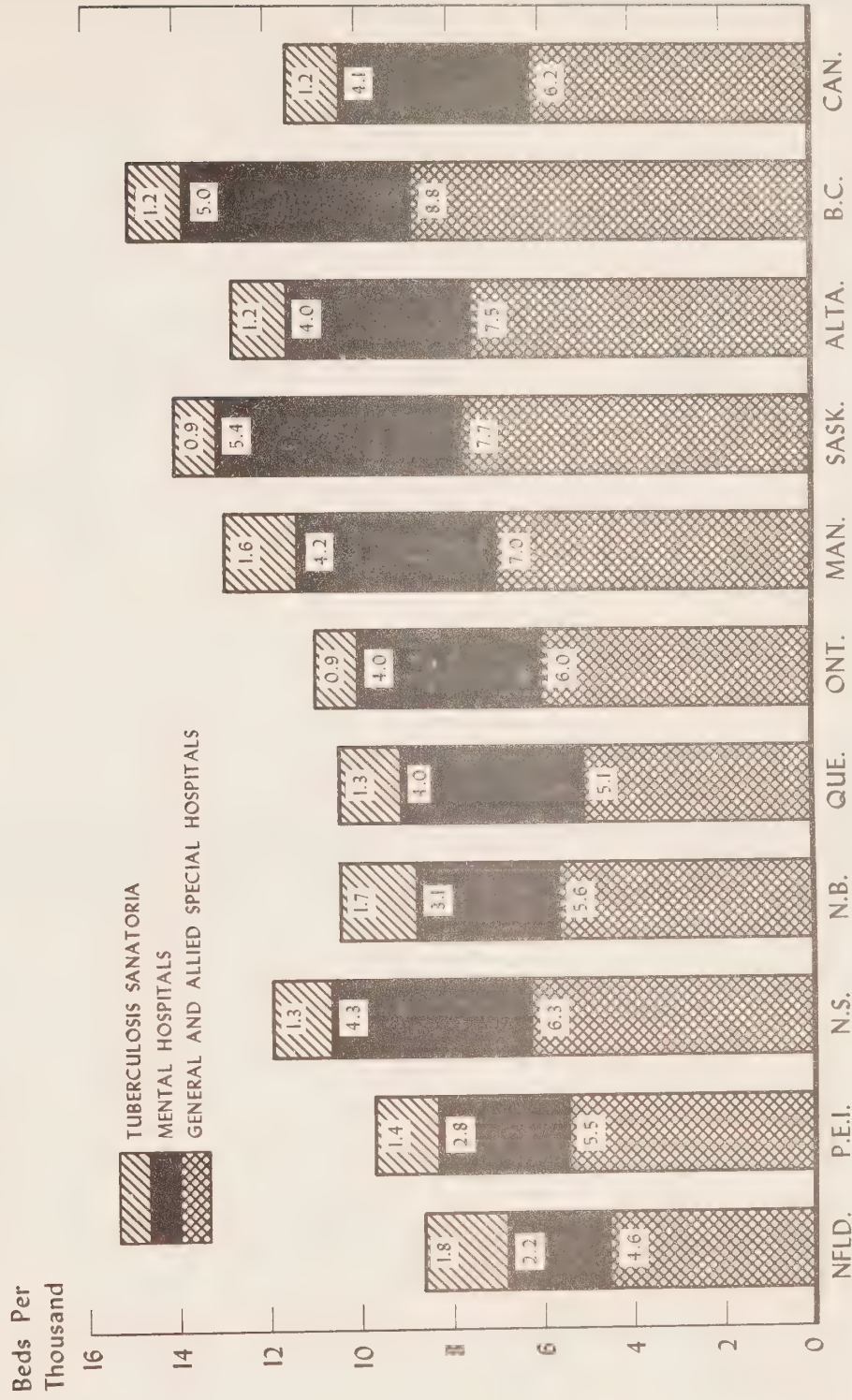
Table 5 below shows the number of hospitals and hospital beds in 1953, classified by ownership, while Table 6 shows public general and allied special hospitals and beds by ownership in the provinces. Although the largest number of hospitals were operated by lay voluntary corporations,

(1) Based on, "The Journal of the American Medical Association", Vol. 155, No. 3, p. 257, Table D (Chicago, Ill., May 15, 1954).

CHART 2

BEDS SET UP PER THOUSAND POPULATION: BY CLASS OF HOSPITAL,★

CANADA AND PROVINCES, 1953



★ Includes Federal Hospitals and Private Hospitals. Excludes Basinsets

TABLE 4 - BEDS SET UP IN GENERAL AND ALLIED SPECIAL HOSPITALS: (a)
BY TYPE OF BED AND BY PROVINCE, DECEMBER 31, 1953

Province	General	Chronic	Convalescent	Communicable Diseases	Maternity	Orthopaedic	Psychiatric	Tuberculosis	Other	All Beds
Nfld.	1,065	120	8	44	146	125	4	98	141	1,751
P.E.I.	457	0	0	8	115	0	0	0	0	580
N.S.	3,018	73	8	78	529	18	0	328	142	4,194
N.B.	2,218	89	0	48	385	16	0	79	151	2,986
Que.	12,822	2,699	794	746	2,206	452	250	110	1,786	21,865
Ont.	20,285	3,186	645	615	3,316	407	262	49	645	29,410
Man.	4,047	630	48	205	606	66	10	12	52	5,676
Sask.	5,007	125	73	142	967	63	63	48	121	6,609
Alta.	5,414	367	0	186	1,034	330	33	15	105	7,484
B.C.	6,612	1,809	282	164	996	200	38	177	558	10,836
N.W.T.	193	0	0	0	12	0	0	358	0	563
Yukon	151	15	0	0	0	0	0	0	0	166
Canada Total	61,289	9,113	1,858	2,236	10,312	1,677	660	1,274	3,701	92,120
Canada Percent	66.5	9.9	2.0	2.4	11.2	1.8	0.7	1.4	4.0	99.9

(a) Includes public, private and federal hospitals as well as estimates for non-reporting hospitals.

Private hospital beds have been estimated by type by assuming that the proportion of private hospitals of each type to the total number of private hospitals, corresponds to the proportion of private hospital beds of each type to the total number of private hospital beds. Bassinets are excluded.

TABLE 5 - HOSPITALS AND HOSPITAL BEDS SET UP IN CANADA(a): BY OWNERSHIP
AND BY CLASS OF HOSPITAL, DECEMBER 31, 1953.

Ownership	General and Allied Special Hospitals(b)		Mental Hospitals(c)		Tuberculosis Sanatoria(d)		All Hospitals	
	Number	Beds Set Up	Number	Beds Set Up	Number	Beds Set Up	Number	Beds Set Up
Federal	47	11,549	0	0	9	2,005	56	13,554
Provincial	27	2,240	43	41,099	15	4,263	85	47,602
Municipal	261	15,558	15	2,296	4	650	280	18,504
Lay Voluntary	276	25,981	2	1,723	25	6,834	303	34,538
Religious	246	30,332	10	14,042	12	3,473	268	47,847
Private	143	2,872	3	363	0	0	146	3,235
Total	1,000	88,532	73	59,523	65	17,225	1,138	165,280

(a) Exclusive of bassinets and beds in non-reporting hospitals.

(b) Derived from D.B.S. Hospital Statistics, 1953, Vol. I.

(c) Derived from D.B.S. Mental Health Statistics, 1953. Based on average daily inpatient population during the year.

(d) Derived from D.B.S. Tuberculosis Statistics, 1953.

TABLE 6 - PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS AND BEDS SET UP: (a)
BY OWNERSHIP AND BY PROVINCE, DECEMBER 31, 1953

Province	Provincial		Municipal		Lay Voluntary		Religious		All Hospitals	
	Number	Beds Set Up	Number	Beds Set Up	Number	Beds Set Up	Number	Beds Set Up	Number	Beds Set Up
Nfld.	19	1,054	0	0	7	391	3	241	29	1,006
P.E.I.	0	0	3	139	2	222	2	219	7	580
N.S.	1	330	7	719	29	1,252	9	955	46	3,256
N.B.	0	0	6	540	12	662	14	1,235	32	2,437
Que.	0	0	0	0	29	5,259	71	11,093	100	16,352
Ont.	0	0	23	5,108	120	11,772	43	7,702	186	24,582
Man.	0	0	38	1,062	12	1,340	15	1,958	65	4,360
Sask.	5	30	122	4,230	5	71	20	1,876	152	6,207
Alta.	1	800	57	3,289	3	180	38	2,557	99	6,826
B.C.	1	26	5	471	57	4,832	24	2,026	87	7,355
N.W.T. & Yukon	0	0	0	0	0	0	7	470	7	470
Canada	27	2,240	261	15,558	276	25,981	246	30,331	810	74,111

(a) Exclusive of federal hospitals, bassinets, and beds in non-reporting hospitals.

Table 5 shows that religious groups and provincial governments controlled the largest number of beds. Calculated on a percentage basis, 29 percent of the beds were maintained by religious organizations; 29 percent by provincial governments; 21 percent by lay voluntary corporations on a non-profit basis; 11 percent by municipal governments; eight percent by the federal government; and two percent by privately operated hospitals.

Government Hospitals. Government agencies operated 37 percent of all hospitals which included 48 percent of all hospital beds in 1953. The majority of the 79,660 beds maintained by governments were in mental hospitals.

Provincial governments are particularly concerned with mental hospitals and tuberculosis sanatoria. The 41,099 provincially maintained mental hospital beds were more than two-thirds of the total; provincial tuberculosis sanatoria included almost one-quarter of the total sanatoria beds. Three provinces operate large general hospitals serving as base hospital centres: the St. John's General Hospital in Newfoundland, the Victoria General Hospital, Halifax, and the University Hospital, Edmonton. The Newfoundland health department also operates a chain of cottage hospitals around the coastline, and the Saskatchewan health department administers a few outpost hospitals in the northern part of the province.

Considerable numbers of local general hospitals are owned and operated by municipalities or groups of municipalities. Various urban communities have constructed large general hospitals and special hospitals for infectious diseases to meet pressing demands for hospital facilities. In rural areas, particularly in the Prairie provinces, municipalities have banded together to erect small community hospitals. More than one-half of the general hospital in each of the provinces of Manitoba, Saskatchewan and Alberta are operated through such intermunicipal hospital districts. In Nova Scotia, most of the beds for mental patients are administered by local governments.

Federal hospitals for special groups are located in all provinces except Prince Edward Island and Newfoundland. These are operated for the armed services by the Department of National Defence; for war veterans by the Department of Veterans Affairs; for Indians and Eskimos by the Directorate of Indian Health Services, Department of National Health and Welfare; and for quarantined persons, immigrants, sick mariners and lepers by the Department of National Health and Welfare. Further discussion of federal hospital facilities may be found in Section 7 of this report.

Voluntary Hospitals. Many of Canada's oldest and largest hospitals were launched and maintained through voluntary action. Voluntary corporations, lay and religious still control about one-half the total of hospital beds, including the majority of general and allied special hospitals and tuberculosis sanatoria.

Hospitals administered by lay voluntary corporations provided 34,538 beds in 1953 and were located in all provinces. Lay hospital boards were most frequent in the province of Ontario where they administered nearly all the tuberculosis sanatoria and 65 percent of the general and allied special hospitals; they also controlled a majority of general and allied special hospitals in Nova Scotia and British Columbia.

Religious groups, particularly orders within the Roman Catholic Church, administer a large number of hospitals; beds numbered 47,847 in 1953. The highest proportion of hospitals under religious auspices are found in the province of Quebec and in the Northwest Territories. All provinces, however, have a substantial number of religious hospitals, many of which are of medium or large size.

Private Hospitals. Private hospitals and nursing homes provide mainly maternity care and care of chronic illness. Such hospitals are usually very small institutions averaging 23 beds per hospital in 1953. Although mainly operated by lay individuals or groups, some are administered by industrial establishments or religious groups. They are found in all provinces except Prince Edward Island, but are most frequent in Quebec, Ontario and British Columbia.

Size of Hospitals⁽¹⁾

The distribution of hospitals by size groups and the average size of hospital varies for different classes of institutions as illustrated in Table 7 below. Tuberculosis sanatoria and mental hospitals are usually large in size; in 1953, the average size of sanatoria was 246 beds, while mental hospitals averaged 801 beds per institution. Other public special hospitals averaged 154 beds, and federal hospitals of all types had an average size of 214 beds. Private hospitals are much smaller, the average size being only 23 beds in 1953.

Public general hospitals may be large, medium or small in size depending upon population density and various other factors affecting the demand for hospital care in each local area. While many existing hospitals have been enlarged considerably, a large number of small hospitals have been constructed in rural areas; the average size of public general hospitals increased from 95 beds in 1948 to 103 beds in 1953. Table 7 also shows that while about one-half of all public general hospitals have from 25 to 99 beds, new hospitals constructed since 1948 are mainly under 25 beds in size or between 100 and 299 beds.

Table 8 shows the provincial distribution of public general and allied special hospitals and hospital beds by size in 1953. Although relatively few in number, hospitals with 300 or more beds accounted for almost 40 percent of all beds thus reflecting the fact that modern scientific medical care can be supplied most efficiently in large institutions. The average size of hospital is highest in Quebec and Ontario where there are many large urban centres; it is lowest in Newfoundland and Saskatchewan where many small hospitals have been built to serve sparsely populated districts.

(1) Hospital size is measured by "beds" which in this instance refer to beds, cribs and bassinets set up.

TABLE 7 - NUMBER OF HOSPITALS IN CANADA: BY SIZE (a) AND BY CLASS OF HOSPITAL, 1948 AND 1953

Class of Hospital	Less than 25 Beds		25 - 99 Beds		100 - 299 Beds		300 or More Beds		All Bed Groups		Average Size of Hospital (b)	
	1948	1953	1948	1953	1948	1953	1948	1953	1948	1953	1948	1953
Public General	133	132	312	303	119	121	46	53	625	751	95	103
Public Special (c)	7	7	23	13	22	27	7	6	54	59	135	154
Private General and Special (c)	152	164	47	37	-	2	-	-	209	143	16	23
Federal (c)	17	8	17	17	18	12	10	10	62	47	153	214
Mental Hospitals	1	3	9	12	13	16	38	44	61	75	871	801
Tuberculosis Sanatoria	1	4	1	1	39	40	10	20	59	70	214	246
All Hospitals	325	315	432	444	207	250	111	133	1075	1145	136	154

(a) Grouping by size of hospital based on beds, cribs and bassinets set up reported to Dominion Bureau of Statistics.

(b) Total beds, cribs and bassinets set up divided by number of hospitals.

(c) Exclusive of mental hospitals and tuberculosis sanatoria.

Source: Unpublished data supplied by Dominion Bureau of Statistics.

TABLE 8 - PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS AND HOSPITAL BEDS SET UP:
BY SIZE OF HOSPITAL(a) AND BY PROVINCE, DECEMBER 31, 1953

Province	Less than 25 Beds		25 - 99 Beds		100 - 299 Beds		300 or More Beds		All Bed Groups		Average Size of Hospital(b)
	Number of Hospitals	Number of Beds set up	Number of Hospitals	Number of Beds set up	Number of Hospitals	Number of Beds set up	Number of Hospitals	Number of Beds set up	Number of Hospitals	Number of Beds set up	
Newfoundland	8	151	14	532	6	794	1	449	29	1,926	66
Prince Edward Island	1	18	3	131	3	564	-	-	7	713	102
Nova Scotia	12	202	21	1,103	12	2,272	1	330	46	3,907	85
New Brunswick	10	175	12	727	9	1,553	1	458	32	2,913	91
Quebec	5	113	31	1,701	49	9,318	15	7,458	100	18,590	186
Ontario	23	340	84	4,644	57	9,995	22	13,551	186	28,530	153
Manitoba	27	395	27	1,329	7	1,234	4	2,167	65	5,125	79
Saskatchewan	73	1,229	67	2,798	8	1,305	4	2,056	152	7,388	49
Alberta	18	344	66	3,021	9	1,271	6	3,427	99	8,063	81
British Columbia	21	271	43	2,055	18	2,450	5	3,705	87	8,481	98
Northwest Territories	1	22	4	238	2	231	-	-	7	491	70
Canada (c)	199	3,260	372	18,279	180	30,987	59	33,611	810	86,127	106

(a) Grouping by size of hospital based on beds, cribs and bassinets set up reported to Dominion Bureau of Statistics.

(b) Total beds, cribs and bassinets set up divided by number of hospitals.

(c) Excludes Yukon Territory.

Source: Unpublished data supplied by Dominion Bureau of Statistics.

2. Auxiliary Special Facilities

The modern hospital serves as a treatment centre for patients, and a training school for health personnel. Special equipment and facilities have multiplied with the progress of scientific and medical knowledge. The extent of auxiliary special facilities gives a rough measure of the scope and quality of services available to the patient. Selected "basic" facilities in general and allied special hospitals are considered below.

The large number of special facilities considered essential for comprehensive hospital care range from radiology departments to facilities for electroencephalography. Services developed over several decades are likely to be found in the majority of hospitals, while newer or very expensive facilities may be limited to the larger institutions. Despite time lags between discovery and widespread application, the general trend is toward an increasing number of special facilities in each hospital.

Table 9 below demonstrates the expansion of three selected special facilities between the years 1948 and 1953. Hospitals with radiology facilities increased from 562 to 692, the number of clinical laboratories rose from 345 to 643, and hospitals with physiotherapy services increased from 277 to 421 over this period.

The thesis that special services are offered more frequently in the larger hospitals is generally supported by Table 10 which shows the percentage of hospitals in several size groups reporting special facilities in 1953. Apparently, however, some of the more specialized services such as physiotherapy, may be found even in the smallest hospitals. Out-patient services are apparently as frequent among small as among large hospitals. On the other hand "basic" laboratory and radiology facilities are still lacking in a few of the larger hospitals having more than 300 beds.⁽¹⁾

Data on the number and percentage of public general and allied special hospitals providing certain special services in 1953 are shown in Table 11. Eighty-five percent of the hospitals maintained out-patient services and radiology facilities, 79 percent had clinical laboratories and anaesthesia, and 75 percent had facilities for oxygen therapy. Basal metabolism tests, physiotherapy, and electrocardiography were available in only about one-half of all reporting hospitals. Less than one-quarter of the hospitals reported dentistry, pathology, organized blood donor services, occupational therapy and electroencephalography.

(1) Such hospitals probably obtain laboratory and radiological services through arrangements with provincial health departments or other hospitals.

TABLE 9 - NUMBER OF PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS REPORTING SELECTED SPECIAL FACILITIES:
BY TYPE OF FACILITY AND BY PROVINCE, 1948 AND 1953

Province	Total Hospitals Reporting		Clinical Laboratory		Radiology		Physiotherapy	
	1948	1953	1948	1953	1948	1953	1948	1953
Newfoundland	0	29	0	25	0	26	0	5
Prince Edward Island	6	7	5	6	6	6	2	4
Nova Scotia	39	46	24	41	29	37	12	15
New Brunswick	30	32	20	21	23	29	15	12
Quebec	88	100	65	89	74	82	65	73
Ontario	156	186	36	134	119	157	56	76
Manitoba	42	65	23	37	37	54	14	26
Saskatchewan	135	152	81	125	110	125	57	92
Alberta	98	99	46	94	85	93	30	63
British Columbia	74	87	41	65	72	76	26	51
Northwest Territories and Yukon	10	7	4	6	7	7	0	4
Canada	678	810	345	643	562	692	277	421

Source: Unpublished data supplied by Dominion Bureau of Statistics.

TABLE 10 - PERCENTAGE OF ALL PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS REPORTING SELECTED SPECIAL FACILITIES: BY SIZE OF HOSPITAL, 1953

Size of Hospital	Number of Hospitals	Percentage with Clinical Laboratory	Percentage with Diagnostic X-ray Service	Percentage with Out-Patient Services	Percentage with Physiotherapy Department	Percentage with Social Service Department
1 - 24 beds	199	50.3	68.8	83.4	30.2	0.5
25 - 99 beds	37	84.1	91.7	87.4	48.4	0.5
100 - 299 beds	180	95.0	89.4	83.3	69.4	5.0
300 - or more beds	59	94.9	89.8	86.4	94.9	37.3
All Hospitals	810	77.4	85.4	85.4	52.0	4.2

Source: Unpublished data supplied by Dominion Bureau of Statistics.

TABLE 11 - NUMBER AND PERCENTAGE OF PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS PROVIDING SELECTED SPECIAL SERVICES, 1953

Type of Service	Number Providing Service	Percentage Providing Service
Out-Patient Services	692	85
Radiology	692	85
Clinical Laboratory	643	79
Anaesthesia	637	79
Oxygen Therapy	606	75
Basal Metabolism Tests	438	54
Physiotherapy Department	421	52
Electrocardiography	377	47
Blood Bank	209	26
Dentistry	196	24
Pathology	157	19
Organized Blood Donor Services	139	17
Occupational Therapy	75	9
Electroencephalography	35	4
Hospitals Reporting	810	--

Source: D.B.S. Hospital Statistics, 1953, Vol. I, and unpublished data supplied by Dominion Bureau of Statistics.

3. Hospital Personnel

Personnel have always been the key to the operation of hospitals. In recent years, personnel problems have been acute in many fields of activity and unusually pressing for hospitals. The expansion of hospitals beds and the shorter work week have increased the demand for personnel of all types in the face of strong competition from business, industry and other forms of employment.

Hospital personnel compose a significant segment of the total number of employed persons throughout the nation, and the size of the segment is increasing. Table 12 below shows that the total number of full-time hospital personnel increased from 95,333 in 1948 to 128,485 in 1953(1). These hospital employees represented about 2 percent of the total labour force in 1948 and 2.5 percent of the labour force in 1953.

The rate of increase of personnel has exceeded the rate of growth of hospital beds. Between 1948 and 1953 full-time personnel increased by 35 percent while hospital beds set up increased by 28 percent. This has been paralleled by an upward trend in the ratio of personnel per patient day of care as illustrated in Table 13.

Increases in the ratio of personnel to patient days may be partly caused by a shorter work week and the resultant need for more staff to undertake a given quantity of work. Data compiled by the Dominion Bureau of Statistics suggest, however, that the average hours worked per patient day are also increasing, at least in public general and allied special hospitals. In 1952, combined data on hours worked in these hospitals yielded an average of 8.8 hours of work per patient day; in 1953, the "hour-day" rate had risen to 9.2 for the same group of hospitals.(2)

It may be concluded that the overall supply of hospital personnel has more than kept pace with the growth of beds and the volume of patients under care. While the situation varies considerably for different classes of personnel and among different provinces, the general quantitative improvement appears to indicate that standards of patient care are being maintained and improved. However, as pointed out below, an undue proportion of inadequately trained personnel may still be employed in many hospitals.

Distribution of Hospital Personnel

Of 128,485 full-time hospital employees in 1953, 90,302 were employed in general and allied special hospitals, 17,484 were employed in mental hospitals, 10,005 worked in tuberculosis sanatoria and 10,694 were employees of federal hospitals, as shown in Table 12. Not only were more people working in general and allied special hospitals, but the ratio of full-time personnel per patient day was much higher than

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- (1) If non-reporting hospitals were included, total full-time personnel in 1953 would probably exceed 135,000.
 - (2) Dominion Bureau of Statistics, Hospital Statistics, 1953. Vol. I, p. 53.

TABLE 12 - FULL-TIME HOSPITAL PERSONNEL EMPLOYED IN ALL HOSPITALS:
BY CLASS OF HOSPITAL AND BY PROVINCE, 1948 AND 1953

Province	General and Allied Special Hospitals (a)		Mental Hospitals (b)		Tuberculosis Sanatoria (c)		Federal (d) Hospitals		All Hospitals	
	1948	1953	1948	1953	1948	1953	1948	1953	1948	1953
Newfoundland	1,131 (e)	1,577	210 (e)	402	267 (e)	507	0	0	1,608	2,486
Prince Edward Island	335	529	77	100	74	114	0	0	486	743
Nova Scotia	2,926	3,501	411	595	337	711	511	542	4,185	5,349
New Brunswick	2,305	2,976	276	370	453	627	420	453	3,454	4,426
Quebec	16,736	18,335	2,704	3,813	1,356	3,053	2,397	2,491	23,193	27,692
Ontario	21,661	34,334	4,462	6,389	2,262	2,602	2,985	3,446	31,370	46,771
Manitoba	3,826	4,712	679	887	360	431	962	1,064	5,827	7,094
Saskatchewan	5,285	6,605	1,216	1,398	527	568	147	221	7,175	8,792
Alberta	5,332	7,342	791	1,303	152	447	393	684	6,668	9,776
British Columbia	7,496	10,238	1,228	2,227	662	945	1,822	1,793	11,208	15,203
Northwest Territo- ries and Yukon	159	153	0	0	0	0	0	0	159	153
CANADA	67,192	90,302	12,054	17,484	6,450	10,005	9,637	10,694	95,333	128,485

(a) Derived from D.B.S. Annual Report of Hospitals, 1948 and Hospital Statistics, 1953. Both public and private hospitals are included.

(b) Derived from D.B.S. Mental Health Statistics, 1953.

(c) Derived from D.B.S. Tuberculosis Institutions, 1948 and Tuberculosis Statistics, 1953. Federal sanatoria and tuberculosis units in general hospitals are excluded.

(d) Derived from D.B.S. Annual Report of Hospitals, 1948 and Hospital Statistics, 1953. Hospitals operated by the Department of National Defence are excluded.

(e) Derived from Newfoundland Health Survey Reporting Form C.

TABLE 13 - RATIO OF PERSONNEL (a) TO AVERAGE DAILY NUMBER OF PATIENTS: (b)
BY CLASS OF HOSPITAL, 1948 TO 1953

Year	General and Allied Special Hospitals(c)	Mental Hospitals (d)	Tuberculosis Sanatoria(e)	Federal Hospitals(f)
1948	1.25	0.23	0.64	1.10
1949	1.31	0.24	0.65	1.01
1950	1.34	0.24	0.65	1.00
1951	1.36	0.26	0.66	1.01
1952	1.39	0.27	0.71	1.04
1953	1.48	0.27	0.71	1.09

(a) Includes part-time personnel where reported as well as full-time personnel.

(b) Includes newborns, children and adults.

(c) Derived from D.B.S. Annual Reports of Hospitals, 1948-1953, and D.B.S. Hospital Statistics, 1953. Ratios for the years 1948 to 1951 were obtained by dividing total personnel reported by the average daily number of patients under care in public and private hospitals. Ratios for 1952 and 1953 were obtained by dividing the total of full-time and part-time personnel reported by the average daily number of patients.

(d) Derived from D.B.S. Mental Health Statistics, 1953, pp. 14-16. Ratios were obtained by dividing the number of full-time personnel reported by the number of patients in hospital at the end of each year.

(e) Derived from D.B.S. Annual Reports of Tuberculosis Institutions, 1948-1952 and D.B.S. Tuberculosis Statistics, 1953. Ratios were obtained by dividing total personnel reported by the daily average number of patients in non-federal sanatoria. Tuberculosis units in general hospitals were not included.

(f) Derived from D.B.S. Annual Reports of Hospitals, 1948-1952 and D.B.S. Hospitals Statistics, 1953. Ratios were obtained by dividing total personnel reported by the daily average number of patients in federal hospitals, including tuberculosis hospitals. Hospitals operated by the Department of National Defence were not included in the calculations.

for other classes of hospital. As shown in Table 13, it required 1.48 persons to provide the necessary service and care each day for every patient in general and allied special hospitals in 1953. The corresponding ratio for federal hospitals was 1.09; for tuberculosis sanatoria, 0.71; and for mental hospitals 0.29.

Comparison of personnel-patient day ratios among provinces in Table 14 indicates substantial differences for public general and allied special hospitals. In 1953, the highest ratio was in Ontario - 1.72, followed closely by British Columbia - 1.67; the lowest ratio was in Newfoundland - 1.17. With the exception of Quebec, there has been a trend toward higher ratios in all provinces since 1948.

Types of Personnel

The numbers of various types of hospital personnel in public general and allied special hospitals in 1953 are shown in Table 15. The importance of nursing personnel is indicated by the fact that 38,488 out of 88,654 full-time staff were engaged in various forms of nursing activity, of whom 17,401 were graduate nurses, 14,443 student nurses and 6,644 nursing assistants. Other groups of technical personnel included 1,606 laboratory technicians, 1,062 radiology technicians, 906 dietitians, 564 medical record librarians, 249 physiotherapists, 185 social service workers and 62 occupational therapists.

Personnel Needs

Despite overall gains, shortages of certain specific categories of professional and technical personnel undoubtedly persist. No hospital can operate without a core of trained nurses; increasing responsibilities are being assigned to this essential group of workers. During the past 20 years the supply of hospital nurses has improved considerably, the number of beds per full-time graduate nurse in public hospitals having been reduced from 10.0 in the year 1933 to 4.0 in 1953.⁽¹⁾ Despite the growth of hospital beds in recent years, the ratio of beds to nurses has remained rather stable since 1948. While this indicates general improvement, the situation varies among individual hospitals, and among different classes of hospitals. For example, the shortage of nursing personnel in mental hospitals continues to be a problem. Statements made in provincial health survey reports in 1948 illustrate other kinds of personnel needed by hospitals. Ontario found a shortage of specially trained personnel in various fields summarized as follows: registered clinical laboratory technicians - 69, combined laboratory and x-ray technicians - 55, registered x-ray technicians - 106, trained dietitians - 89, trained medical records librarians - 103, registered pharmacists - 42, physiotherapists - 96, combined occupational and physiotherapists - 52, registered occupational therapists - 26 and social workers - 102.⁽²⁾ In Manitoba, the need was stated to be 3 pathologists, 4 radiologists, 21 x-ray technicians, 7 dietitians and 12 trained hospital administrators as well as

(1) Based on D.B.S. Annual Reports of Hospitals, 1933-1953

(2) Ontario, Health Survey Committee, Réport of the Ontario Health Survey Committee. Toronto: The Committee, 1951, p. 66

TABLE 14 - RATIO OF PERSONNEL (a) TO AVERAGE DAILY NUMBER OF PATIENTS (b) IN PUBLIC
GENERAL AND ALLIED SPECIAL HOSPITALS: BY PROVINCE, 1948 TO 1953

Province	1948	1949	1950	1951	1952	1953
Newfoundland (c)	-	-	-	-	-	1.17
Prince Edward Island	0.55	1.06	1.28	1.15	1.33	1.41
Nova Scotia	1.33	1.42	1.54	1.36	1.34	1.49
New Brunswick	1.15	1.29	1.32	1.37	1.36	1.56
Quebec	1.28	1.33	1.29	1.29	1.23	1.30
Ontario	1.31	1.39	1.47	1.54	1.60	1.72
Manitoba	1.20	1.25	1.36	1.31	1.38	1.44
Saskatchewan	1.12	1.12	1.14	1.20	1.26	1.31
Alberta	1.21	1.28	1.33	1.30	1.28	1.40
British Columbia	1.42	1.48	1.45	1.54	1.58	1.67
Northwest Territories and Yukon	0.68	0.61	0.53	0.49	0.47	0.41
CANADA	1.27	1.33	1.36	1.39	1.41	1.50

(a) Includes part-time personnel where reported as well as full-time personnel.

(b) Includes newborns, children and adults.

(c) Not available for years 1948 to 1952.

Source: D.B.S. Annual Reports of Hospitals, 1948 - 1952 and D.B.S. Hospital Statistics, 1953, Vol. I.

TABLE 15 - FULL-TIME PERSONNEL EMPLOYED IN PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS: BY TYPE OF PERSONNEL AND BY PROVINCE, 1953

Type of personnel	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada (a)
Salaried Doctors	28	1	14	5	126	158	37	21	21	31	442
Interns	17	0	77	17	543	628	75	51	109	149	1,666
Graduate Nurses	269	84	818	533	2711	7075	731	1291	1477	2412	17,401
Student Nurses	248	134	692	616	2779	5486	859	1172	1264	1193	14,443
Nursing Assistants	187	40	233	264	1390	2525	513	135	488	869	6,644
Orderlies	47	9	19	72	475	1043	131	139	151	350	2,436
Physiotherapists	4	0	4	4	39	106	12	11	30	39	249
Occupational Therapists	1	0	0	0	16	36	2	0	2	5	62
Pharmacists	3	1	4	7	49	86	9	14	17	21	211
Dieticians	23	4	31	25	179	399	53	37	73	82	906
Medical Record Librarians	7	4	24	23	144	218	36	29	35	44	564
Laboratory Technicians	19	8	57	30	427	538	83	154	139	151	1,606
Radiology Technicians	29	8	76	53	233	343	62	69	90	99	1,062
Social Service Workers	1	3	3	0	86	59	10	2	4	17	185
Others	694	233	1448	1301	8776	15,202	2095	3480	3442	4106	40,777
All Types	1577	529	3500	2950	17,973	33,902	4708	6605	7342	9568	88,654

(a) Exclusive of Yukon and Northwest Territories.

additional anaesthetists, medical social workers and pharmacists to provide services of approved standards.(1) Saskatchewan noted a special need for 43 registered laboratory technicians, 39 "combined" laboratory and radiological technicians, and 19 radiological technicians.(2)

Many provincial health survey reports emphasized that the proportion of inadequately trained personnel was too large. Since that time the federal Professional Training Grant, the Mental Health Grant, the Tuberculosis Control Grant, and other measures have been used to increase the supply of trained hospital personnel. Illustrative of the situation at the end of 1953 are statistics showing that in public general and allied special hospitals, only 66 percent of the social workers were qualified, 59 percent of the laboratory technicians were certified and 51 percent of the radiological technicians were registered. (3)

The hospital personnel situation is complicated by employment opportunities outside hospitals, where technical personnel may be offered higher wages and broader opportunities. Since hospitals operate 24 hours a day and seven days a week, personnel are required to take their turn on various shifts, a situation which does not appeal to many workers. Such factors contribute to an extremely high turnover among certain classes of hospital employees and contribute in large measure to the high cost of hospital care, since hospitals have been forced to increase salaries and reduce working hours to compete with other sources of employment.(4)

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- (1) Manitoba, Advisory Health Survey Committee, An Abridgement of the Manitoba Health Survey Report. Winnipeg: Queen's Printer, 1953, Appendix XVI.
 - (2) Saskatchewan, Health Survey Committee, Saskatchewan Health Survey Report. II. Hospital Survey and Master Plan. Regina: The Committee, 1951, pp. 15-18.
 - (3) Based on Dominion Bureau of Statistics, Hospital Statistics, Vol. I, p. 54.
 - (4) Costs of hospital care are discussed later in Section 10 of this report.

4. Utilization of Hospitals

The total volume of hospital care provided by all types of Canadian hospitals has been increasing steadily for many years. By 1953, as shown in Table 16 below, approximately 56 million days of hospital care of all kinds were provided annually to Canadians. This represented 3.8 days of care per year for each man, woman, and child in the nation, or in other words, for each hundred days lived by Canadians, about one day was spent in a hospital bed.

It is estimated that about 28 million days of care were supplied in 1953 in general and allied special hospitals. Distribution of these days by category of hospital was:

public general hospitals (adults and children)	- 18.0 million days
public general hospitals (newborns)	- 2.1 million days
public special hospitals (adults and children)	- 3.0 million days
public special hospitals (newborns)	- 0.2 million days
private hospitals	- 1.3 million days
federal hospitals	- 2.6 million days
tuberculosis units	- 0.5 million days
psychiatric units	- 0.3 million days

Psychiatric patients accounted for 22.4 million days of care including 21.6 million in non-federal mental hospitals, 0.5 million in federal mental institutions and 0.3 million in psychiatric units of general hospitals.⁽¹⁾ Tuberculosis patients had a combined total of about 6.4 million patient days including 5.2 million in non-federal sanatoria, 0.7 million in federal sanatoria and 0.5 million in tuberculosis units of general hospitals.

Patient Movement - General and Allied Special Hospitals

Turning now to an examination of patient movement in general and allied special hospitals, exclusive of federal hospitals, mental hospitals and tuberculosis sanatoria, definite trends in the pattern of utilization over the past few years can be discerned. The widespread purchase of hospital insurance and the changing characteristics of hospital care have evidently stimulated growth in the volume of hospital care. Part of the increase may be attributed to population growth, but part results from a higher volume of care per unit of population.

Admissions and Days of Care. Total hospital admissions have risen from 1.3 million in 1946 to about 2 million in 1953, as shown in Table 17; the average annual increment has been about 100,000. Admissions per thousand population calculated in Table 18 have increased each year, moving from 106 per thousand in 1946 to 135 per thousand in 1953; this is a 27 per cent increase. The trend in admission-population ratios in each province is illustrated graphically in Chart 3. At the present time, there is more than one admission a year to general and allied special hospitals for every eight persons in the country.

Days of care of adults and children in general and allied special hospitals have been increasing by about one million days each year rising from 16.8 million in 1946 to about 23 million in 1953 as indicated in Table 19. Over the same period, days of care per thousand population have increased by 14 percent from 1,371 to 1,558 days per thousand as shown in Table 20. The trend in each province is illustrated in Chart 4.

- (1) For further information on the movement of psychiatric patients, see Mental Health Services in Canada, Dept. of N.H. & W., Research Division, Memo. No. 6, General Series, 1954.
- (2) For further information on the movement of tuberculosis patients see Tuberculosis Services in Canada, Dept. of N.H. & W., Research Division, Memo. No. 11, General Series, 1955.

TABLE 16 - DAYS OF HOSPITAL CARE: BY CLASS OF HOSPITAL AND BY PROVINCE, 1953

Province	General and Allied Special Hospitals		Mental Hospital (c)	Tuberculosis Sanatoria (d)	Federal Hospitals (e)	All Hospitals
	Adults and Children (f)	Nurses (g)				
Nfld.	46,597		300,582	248,547	0	1,074,632
P.E.I.	17,594		109,688	48,073	0	303,993
N.S.	100,216		1,025,012	251,858	203,154	2,364,432
N.B.	83,617		586,555	286,979	124,550	1,723,842
Que.	528,827		6,156,854	1,830,609	744,556(h)	15,228,981
Ont.	775,646		6,901,134	1,472,310	1,189,379(j)	17,867,922
Man.	123,677		1,243,270	235,218	443,196(l)	3,378,858
Sask.	177,939		1,689,764	278,439	109,533	4,038,266
Alta.	244,907		1,299,957	190,485	361,284(n)	3,837,092
B.C.	221,580		2,252,116	316,773	685,006(o)	5,963,141
N.W.T. & Yukon	1,231		0	0	0	170,214
Canada	23,030,661(q)	2,321,831	21,569,932	5,160,291	3,866,658(r)	55,949,373

- (a) Based on D.B.S. Hospital Statistics, 1953, Vol. I, pp. 88 and 104. Includes public and private hospitals. Includes estimates of patient days in non-reporting hospitals. Includes patient days in federal mental hospitals.
- (b) Based on D.B.S. Hospital Statistics, 1953, Vol. I, pp. 88 and 104. Includes public and private hospitals.
- (c) Based on D.B.S. unpublished data. Excludes patient days in federal mental hospitals.
- (d) Based on D.B.S. Tuberculosis Statistics, 1953, p. 13 with deductions for patient days in federal tuberculosis sanatoria.
- (e) Based on D.B.S. Hospital Statistics, 1953, Vol. I, p. 120.
- (f) Includes an estimated 18,246 days in non-reporting hospitals having 65 beds.
- (g) Includes an estimated 955,506 days in non-reporting hospitals having 3,260 beds.
- (h) Includes 189,063 days in federal mental institutions, and 53,739 days in federal tuberculosis sanatoria.
- (i) Includes an estimated 294,052 days in non-reporting hospitals having 1,026 beds.
- (j) Includes 281,050 days in federal mental institutions and 77,131 days in federal tuberculosis sanatoria.
- (k) Includes an estimated 110,443 days in non-reporting hospitals having 399 beds.
- (l) Includes 173,523 days in federal tuberculosis sanatoria.
- (m) Includes an estimated 13,409 days in non-reporting hospitals having 53 beds.
- (n) Includes 190,705 days in federal tuberculosis sanatoria.
- (o) Includes 172,611 days in federal tuberculosis sanatoria.
- (p) Includes an estimated 32,499 days in non-reporting hospitals having 115 beds.
- (q) Includes an estimated 1,424,155 days in all non-reporting hospitals.
- (r) Includes 470,113 days in federal mental hospitals and 667,709 days in federal tuberculosis sanatoria.

TABLE 17 - ADMISSIONS TO GENERAL AND ALLIED SPECIAL HOSPITALS: BY PROVINCE,
1946, 1948, 1950, 1951, 1952, 1953^(a)

Province	1946	1948	1950	1951	1952	1953
Newfoundland ^(b)	7,845	11,947	11,002	12,083	12,648	31,623 ^(c)
Prince Edward Island	63,012	65,017	70,108	75,872	78,589	13,384
Nova Scotia	50,237	63,225	69,349	70,195	68,413	78,659
New Brunswick	258,188	297,172	352,998	372,343	404,327	73,403 ^(f)
Quebec	438,791	481,972	524,863	562,209	607,014	439,321 ^(g)
Ontario	90,591	96,073	103,245	114,200	117,360	656,887 ^(h)
Manitoba	113,833	145,230	167,618	164,184	172,743	120,479
Saskatchewan	135,373	146,216	159,756	167,774	183,879	176,427
Alberta	140,402	164,593	181,492	190,412	198,089	194,765 ⁽ⁱ⁾
British Columbia	2,422	3,302	2,214	2,506	1,736 ^(j)	210,758 ^(k)
Northwest Territories and Yukon						1,804
Canada	1,300,694	1,474,747	1,642,645	1,731,778	1,844,798 ^(l)	1,997,510 ^(m)

(a) Based on D.B.S. Annual Reports of Hospitals, 1946 to 1952 and Hospital Statistics, 1953, Vol. I. Includes public and private hospitals as well as hospitals for incurables, with estimates of admissions to non-reporting hospitals based on the ratio of admissions per bed in reporting hospitals in each province. Excludes newborn admissions and all admissions to federal hospitals.

- (b) Not available for years 1946, 1948, 1950, 1951 and 1952.
- (c) Includes an estimated 1,593 admissions to non-reporting hospitals having 65 beds.
- (d) Based on reports from only 3 out of 6 hospitals.
- (e) Includes an estimated 39,206 admissions to 11 non-reporting hospitals having 1,894 beds.
- (f) Includes an estimated 70,416 admissions to non-reporting hospitals having 3,260 beds.
- (g) Includes an estimated 25,650 admissions to non-reporting hospitals having 1,026 beds.
- (h) Includes an estimated 10,095 admissions to non-reporting hospitals having 399 beds.
- (i) Includes an estimated 1,500 admissions to non-reporting hospitals having 53 beds.
- (j) Includes an estimated 288 admissions to 2 non-reporting hospitals having 93 beds.
- (k) Includes an estimated 345 admissions to non-reporting hospitals having 115 beds.
- (l) Includes an estimated 39,494 admissions to non-reporting hospitals.
- (m) Includes an estimated 109,599 admissions to non-reporting hospitals.

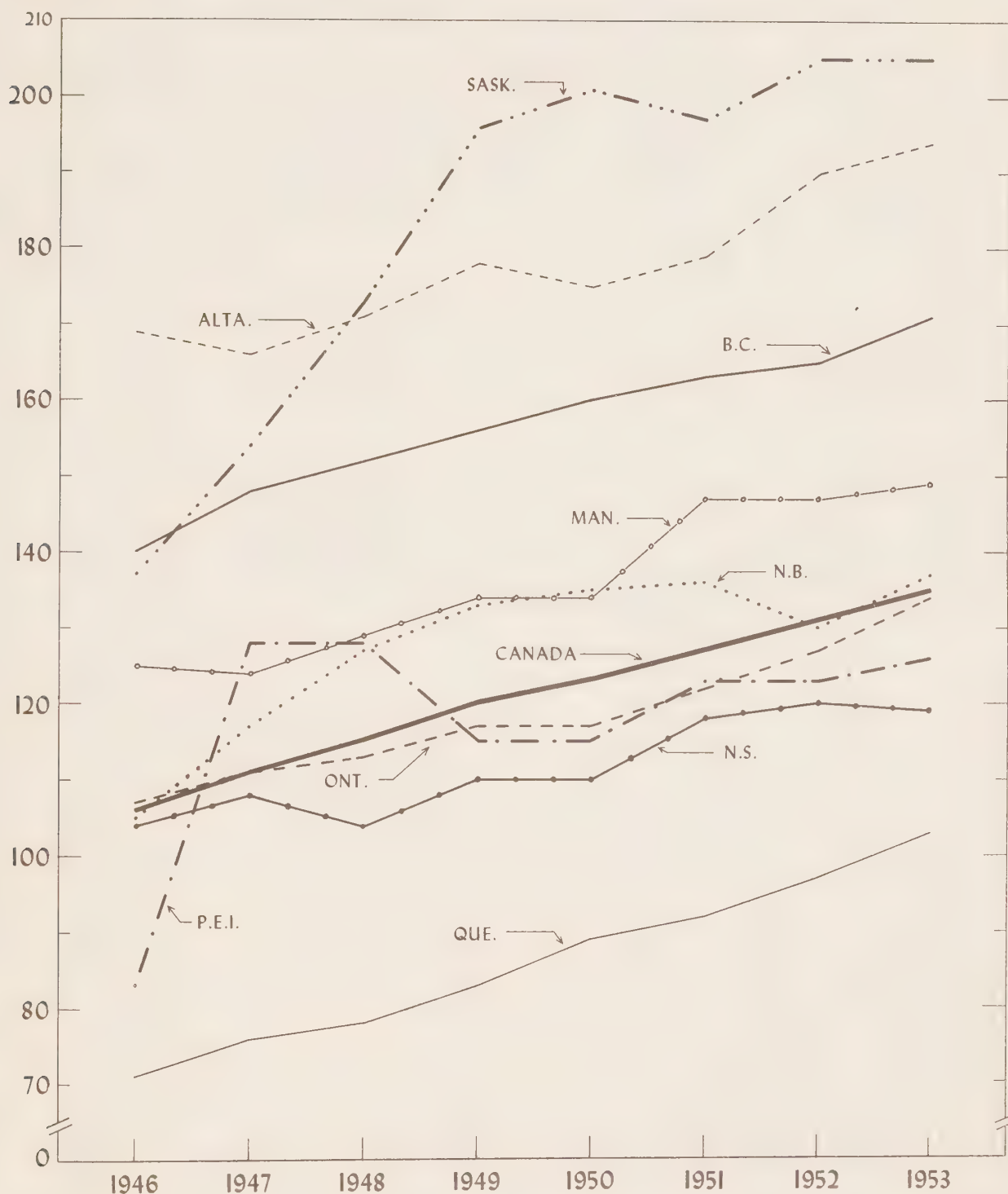
TABLE 18 - ESTIMATED ADMISSIONS TO GENERAL AND ALLIED SPECIAL HOSPITALS(a) PER 1000 POPULATION(b): BY PROVINCE, 1946, 1948, 1950, 1951, 1952, 1953

Province	1946	1948	1950	1951	1952	1953
Newfoundland(c)	-	-	-	-	-	83
Prince Edward Island	83(d)	128	115	123	123	126
Nova Scotia	104	104	110	118	120	119
New Brunswick	105	127	135	136	130	137
Quebec	71	78	89	92	97	103
Ontario	107	113	117	122	127	134
Manitoba	125	129	134	147	147	149
Saskatchewan	137	173	201	197	205	205
Alberta	169	171	175	179	190	194
British Columbia	140	152	160	163	165	171
Northwest Territories	151	206	138	157	109	113
Canada(e)	106	115	123	127	131	135

- (a) Data include public and private hospitals and are based on D.R.S. Annual Reports of Hospitals, 1946 to 1952 and Hospital Statistics, 1953, Vol. 1 with adjustments for admissions to non-reporting hospitals based on the ratio of admissions to beds in reporting hospitals in each province. Excludes newborn admissions and all admissions to federal hospitals.
- (b) Population based on D.B.S. Memorandum, Population of Canada by Provinces, 1921-1954 -- Estimated as of June 1 for Intercensal Years.
- (c) Data not available for years 1946, 1948, 1950, 1951 and 1952.
- (d) Based on reports from only 3 out of 6 hospitals.
- (e) Excludes Newfoundland for years 1946, 1948, 1950, 1951 and 1952.

CHART 3 ESTIMATED ADMISSIONS TO GENERAL AND ALLIED SPECIAL HOSPITALS PER THOUSAND POPULATION: BY PROVINCE,★ 1946 TO 1953

Admissions Per
Thousand



★ Includes Private Hospitals. Excludes all Newfoundland Hospitals, Federal Hospitals and all Newborn Admissions

Source: Table 18 and D.B.S. Annual Reports of Hospitals, 1947 and 1949

Research Division, Dept. of N.H. & W.

TABLE 19 - DAYS OF CARE IN GENERAL AND ALLIED SPECIAL HOSPITALS: BY PROVINCE,
1946, 1948, 1950, 1951, 1952, 1953^(a)

Province	1946	1948	1950	1951	1952	1953
Newfoundland ^(b)	76,327 ^(d)	127,381	115,679	131,754	131,661	478,906 ^(c)
Prince Edward Island	669,595	686,563	708,154	843,813	807,129	128,638
Nova Scotia	521,866	645,751	648,271	673,258	630,082 ^(e)	784,192
New Brunswick	4,397,454	4,429,742	5,317,708	5,507,697	5,860,947	642,141 ^(f)
Quebec	5,508,731	5,709,653	6,317,352	6,640,282	7,016,744	5,968,135 ^(g)
Ontario	1,077,730	1,091,565	1,087,388	1,196,026	1,242,389	7,529,453 ^(h)
Manitoba	1,302,813	1,589,190	1,810,806	1,802,747	1,787,350	1,319,497
Saskatchewan	1,407,326	1,436,615	1,413,361	1,519,871	1,629,995	1,782,591 ⁽ⁱ⁾
Alberta	1,831,614	1,935,810	2,265,110	2,338,288	2,448,723	1,740,459
British Columbia						2,487,666
Northwest Territories and Yukon	63,953	80,749	94,360	127,791	135,630 ^(j)	168,983 ^(k)
Canada	16,857,409	17,733,019	19,778,189	20,781,527	21,690,650 ^(l)	23,030,661 ^(m)

- (a) Based on D.B.S. Annual Reports of Hospitals. 1946 to 1952 and Hospital Statistics, 1953, Vol. I. Includes public and private hospitals, as well as hospitals for incurables, with estimates of patient days in non-reporting hospitals based on the ratio of days of care to beds in reporting hospitals in each province. Excludes newborn days of care and all days of care in federal hospitals.
- (b) Not available for years 1946, 1948, 1950, 1951 and 1952.
- (c) Includes an estimated 18,246 days in non-reporting hospitals having 65 beds.
- (d) Based on reports from only 3 out of 6 hospitals.
- (e) Includes an estimated 573,314 days in 11 non-reporting hospitals having 1,894 beds.
- (f) Includes an estimated 955,506 days in non-reporting hospitals having 3,260 beds.
- (g) Includes an estimated 294,052 days in non-reporting hospitals having 1,026 beds.
- (h) Includes an estimated 110,443 days in non-reporting hospitals having 399 beds.
- (i) Includes an estimated 13,409 days in non-reporting hospitals having 53 beds.
- (j) Includes an estimated 22,646 days in 2 non-reporting hospitals with 93 beds.
- (k) Includes an estimated 32,499 days in non-reporting hospitals having 115 beds.
- (l) Includes an estimated 595,960 days in non-reporting hospitals.
- (m) Includes an estimated 1,424,155 days in non-reporting hospitals.

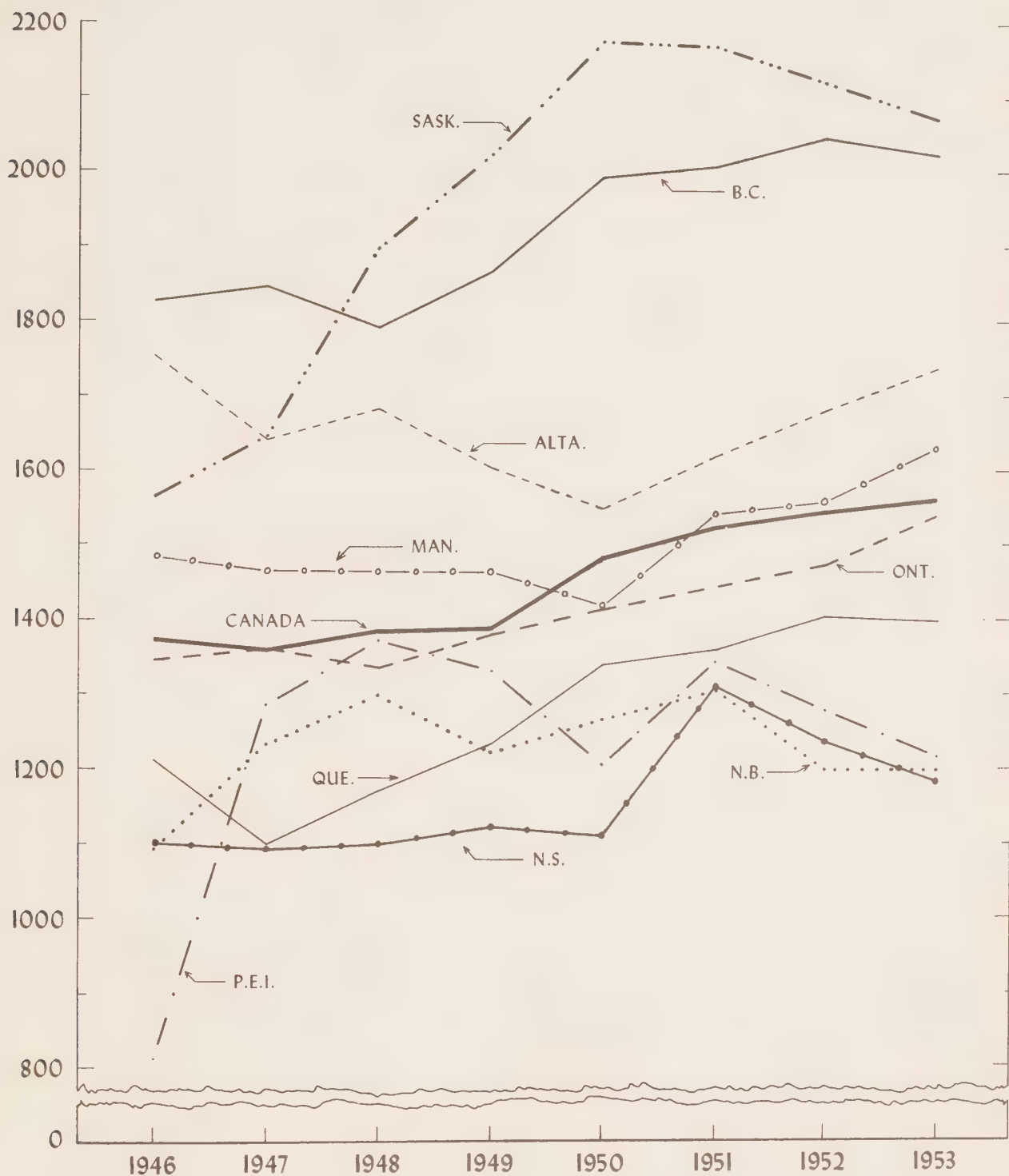
TABLE 20 - ESTIMATED DAYS OF CARE IN GENERAL AND ALLIED SPECIAL HOSPITALS (a) PER 1000 POPULATION (b): BY PROVINCE, 1946, 1948, 1950, 1951, 1952, 1953

Province	1946	1948	1950	1951	1952	1953
Newfoundland (c)	-	-	-	-	-	1,250
Prince Edward Island	812 (b)	1,370	1,205	1,344	1,278	1,214
Nova Scotia	1,101	1,099	1,110	1,312	1,236	1,183
New Brunswick	1,092	1,297	1,266	1,305	1,198	1,198
Quebec	1,212	1,169	1,340	1,358	1,404	1,398
Ontario	1,346	1,336	1,413	1,444	1,472	1,538
Manitoba	1,482	1,463	1,416	1,541	1,557	1,631
Saskatchewan	1,564	1,896	2,174	2,167	2,120	2,070
Alberta	1,753	1,682	1,548	1,619	1,680	1,737
British Columbia	1,826	1,789	1,992	2,007	2,044	2,022
Northwest Territories and Yukon	2,665	3,365	3,922	5,112	5,425	6,759
Canada (e)	1,371	1,383	1,480	1,523	1,543	1,558

- (a) Data include public and private hospitals and are based on D.B.S. Annual Reports of Hospitals, 1946 to 1952 and Hospital Statistics, 1923, Vol. I with adjustments for estimated patient days in non-reporting hospitals based on the ratio of days of care to beds in reporting hospitals in each province. Excludes newborn days of care and all days of care in federal hospitals.
- (b) Population based on D.B.S. Yearbook, Population of Canada by Provinces, 1921-1954 -- Estimated as of June 1 for intercensal years.
- (c) Data not available for years 1946, 1948, 1950, 1951 and 1952.
- (d) Based on reports from only 3 out of 6 hospitals.
- (e) Excludes Newfoundland for years 1946, 1948, 1950, 1951 and 1952.

CHART 4 ESTIMATED DAYS OF CARE IN GENERAL AND ALLIED SPECIAL HOSPITALS PER THOUSAND POPULATION: BY PROVINCE,* 1946 TO 1953

Days of Care
Per Thousand



* Includes Private Hospitals. Excludes all Newfoundland Hospitals, Federal Hospitals and all Newborn Days of Care

Source: Table 20 and D.B.S. Annual Reports of Hospitals, 1947 and 1949

Research Division, Dept. of N.H. & W.

Reference to Charts 3 and 4 shows that overall admission-population rates and patient day-population rates have been climbing each year since 1946. These trends have paralleled improvements in the hospital bed situation described elsewhere in Sections 5 and 6 of this report. Since 1950, however, the rate of increase in the patient day-population rate has been slowing down.

Average Length of Stay. Hospital utilization is affected by the average length of stay, which varies greatly among different types of hospital and hospitals of different size. Special hospitals for chronic diseases, convalescent and orthopaedic patients have much longer average lengths of stay than general hospitals concerned mainly with acute diseases. Among public general hospitals, length of stay is highest in large hospitals; in 1953, average length of stay of separations by size of hospital varied from 7.3 days in hospitals of 1 to 24 beds to 13.5 days in hospitals having 500 or more beds.⁽¹⁾ While considerable variations among provinces may be noted in Table 21, the national average length of stay in all public general hospitals has remained at about 10 days per separation over the past few years.

Bed Occupancy. The extent to which hospital beds are used by patients is measured by the bed occupancy rate.⁽²⁾ Since potential bed days can never be fully utilized because of the need to reserve space and keep beds available for emergencies, the average percentage occupancy based on beds set up must always be less than 100 percent. Normal occupancy rates vary according to size and type of hospital. Small hospitals usually have lower occupancy rates than large hospitals, and long-stay hospitals have higher occupancy rates than short-stay acute disease hospitals.

The average percentage occupancy of all public general hospitals based on beds set up has remained relatively constant since 1946, varying from 74.5 percent to 77.6 percent as shown in Table 22. Changes that have occurred and differences between provinces depend on numerous factors including variations in the proportion of hospitals of different size and variations in the demand for hospital care. Table 23 shows average percentage occupancy of groups of hospitals classified according to size, demonstrating the higher occupancy rates of large hospitals.⁽³⁾

(1) Dominion Bureau of Statistics, Hospital Statistics, 1953, Vol. I, p. 90.

(2) The bed occupancy rate is equal to the average daily census of patients divided by the number of beds set up or the rated bed capacity. Average percentage occupancy is equal to the occupancy rate times 100.

(3) Average percentage occupancy in Table 22 is based on days of adults and children in relation to beds and cribs set up. Average percentage occupancy in Table 23 is based on days of adults, children and newborns in relation to beds, cribs and bassinets set up.

TABLE 21 - AVERAGE LENGTH OF STAY OF SEPARATIONS IN PUBLIC GENERAL HOSPITALS:
BY PROVINCE, 1946, 1948, 1950, 1951, 1952, 1953

Province	1946	1948	1950	1951	1952	1953
Newfoundland ^(a)	-	-	-	-	-	14.2
Prince Edward Island	9.1	10.4	11.0	10.7	10.5	9.8
Nova Scotia	10.1	10.0	9.8	10.9	10.3	9.5
New Brunswick	10.7	9.9	9.0	9.0	9.0	10.1
Quebec	12.9	11.5	11.1	11.2	11.2	11.2
Ontario	10.4	9.8	10.0	9.1	9.8	9.8
Manitoba	9.0	9.4	8.8	8.5	8.5	8.5
Saskatchewan	10.1	10.2	10.0	10.7	10.3	10.2
Alberta	9.3	9.2	8.6	8.5	8.9	8.6
British Columbia	10.7	9.9	10.2	9.9	10.8	10.1
Northwest Territories and Yukon	18.6	15.8	10.1	26.5	77.8	103.4
Canada ^(b)	10.7	10.0	9.9	9.8	10.0	10.0

(a) Not available for years 1946, 1948, 1950, 1951 and 1952.

(b) Excludes Newfoundland for years 1946, 1948, 1950, 1951 and 1952.

Source: D.B.S. Annual Reports of Hospitals, 1946 to 1952 and Hospital Statistics, 1953, Vol. I.

TABLE 22 - AVERAGE PERCENTAGE OCCUPANCY OF PUBLIC GENERAL HOSPITALS: BY PROVINCE(a), 1946, 1948, 1950, 1951, 1952, 1953

Province	1946	1948	1950	1951	1952	1953
Newfoundland(b)	-	-	-	-	-	73.3
Prince Edward Island	78.9	74.6	56.0	62.1	62.3	60.8
Nova Scotia	79.7	66.8	62.7	70.6	73.6	66.9
New Brunswick	68.8	74.7	73.5	75.0	74.5	71.4
Quebec	80.7	74.4	75.3	77.7	79.5	81.3
Ontario	81.1	79.4	80.1	78.8	79.2	78.0
Manitoba	75.1	73.1	67.2	69.1	73.5	73.1
Saskatchewan	74.4	73.5	78.5	77.7	78.0	78.5
Alberta	73.4	71.7	67.1	65.7	72.1	69.1
British Columbia	73.8	71.0	78.9	77.3	79.5	76.6
Northwest Territories and Yukon	50.7	50.0	72.3	75.4	68.9	79.5
Canada(c)	77.6	74.5	75.3	76.1	77.5	76.4

(a) Based on beds and cribs set up.

(b) Not available for years 1946, 1948, 1950, 1951 and 1952.

(c) Excludes Newfoundland for years 1946, 1948, 1950, 1951 and 1952.

Source: D.B.S. Annual Reports of Hospitals, 1946 to 1952 and Hospital Statistics, 1953, Vol. 1, unpublished data.

TABLE 23 - AVERAGE PERCENTAGE OCCUPANCY OF PUBLIC GENERAL HOSPITALS: BY SIZE
OF HOSPITAL(a) AND BY PROVINCE, 1953

Province	1-20 Beds	25-99 Beds	100-299 Beds	300 or More Beds	All General Hospitals
Newfoundland	53.5	52.6	78.1	85.6	70.6
Prince Edward Island	18.0	47.9	59.3	-	56.2
Nova Scotia	27.2	56.0	59.4	123.3	62.5
New Brunswick	44.1	65.1	67.7	77.7	67.3
Quebec	58.3	62.8	76.5	85.2	78.6
Ontario	37.6	62.9	75.7	77.7	74.1
Manitoba	53.8	49.3	76.2	80.8	67.9
Saskatchewan	52.7	66.2	79.9	88.0	72.5
Alberta	48.6	58.1	66.0	76.5	66.9
British Columbia	43.6	60.2	77.2	80.4	73.4
Northwest Territories and Yukon	61.3	77.6	77.5	-	76.8
Canada	48.2	61.2	73.4	80.8	72.6

(a) Based on beds, cribs, and bassinets set up.

Source: Unpublished data supplied by Dominion Bureau of Statistics.

Births and Deaths in Hospital. Further evidence of the increasing demand for hospital services is indicated by data on the proportion of births and deaths occurring in hospital. Table 24 shows that 83.4 percent of all births occurred in hospital in 1953, a large increase from 67.6 percent in 1946, and a tremendous change from 17.8 percent reported in 1926. Table 25 shows that 25 percent of all deaths occurred in hospital in 1926; in 1946 the figure had risen to 46 percent; in 1953, 51.5 percent of all deaths took place in hospital.

Utilization of Hospitals - by Province

Patterns of hospital utilization vary greatly between the provinces. Generally speaking, the per capita volume of hospital care provided in the three most western provinces is higher than the Canadian average. The provinces of Manitoba and Ontario tend to be similar to the average Canadian pattern of utilization while Quebec and the Atlantic provinces provide a somewhat lower volume of hospital care. Some of the factors affecting these variations between provinces and trends since 1946 are discussed below.

Newfoundland. In Newfoundland, a low bed-population ratio, a scattered population, transportation difficulties, and low cash incomes have limited the effective demand for hospital care. On the other hand, the cottage hospital scheme of prepaid hospital insurance has made hospital care available to many isolated areas.

Data on the utilization of hospital services in Newfoundland are available only for the years 1948⁽¹⁾ and 1953⁽²⁾. Patient days increased from 354,644 in 1948 to 478,906 in 1953 moving from 1,030 to 1,250 days of hospital care per thousand population. Admissions of adults and children rose from 23,977 to 31,623, or from 70 to 83 admissions per thousand population. While the admission-population rate remains the lowest in Canada, days of care per capita are now higher than in the other Atlantic provinces, because of a high average length of stay.

Prince Edward Island. The days of care provided per thousand population and admissions per thousand population have been consistently lower in Prince Edward Island than in Canada as a whole. The average length of stay of separations is higher than in most other provinces, but average percentage occupancy is the lowest in Canada. The steadily increasing proportion of births and deaths taking place in hospital indicates a growing demand for hospitalization.

Nova Scotia. While total admissions have increased each year in Nova Scotia, total days of care have declined since 1951; admissions have reached 120 per thousand population, while days of care have averaged about 1,200 per thousand population over the past three years. As in the other Atlantic provinces hospital utilization has remained generally lower than the average for Canada as a whole. There has been a gradual increase in the proportion of births and of

(1) Based on Newfoundland Health Survey Report.

(2) Based on Dominion Bureau of Statistics, Hospital Statistics, 1953, Vol. I.

TABLE 24 - PERCENTAGE OF TOTAL BIRTHS OCCURRING IN HOSPITAL: BY PROVINCE,
1926, 1936, 1946, 1948, 1950, 1951, 1952, 1953

Province	1926	1936	1946	1948	1950	1951	1952	1953
Prince Edward Island	2.7	14.6	66.0	76.1	84.3	88.3	87.1	91.9
Nova Scotia	7.3	28.2	74.5	86.2	84.9	87.2	88.8	90.4
New Brunswick	6.5	18.5	53.6	63.6	67.8	70.7	74.0	77.4
Quebec	4.8	10.7	30.0	41.2	47.8	53.0	56.7	60.3
Ontario	24.0	45.8	84.7	88.4	90.4	93.1	94.6	95.7
Manitoba	31.3	54.0	87.1	89.2	91.4	93.1	93.7	94.7
Saskatchewan	22.5	34.9	66.7	91.6	94.6	95.2	96.4	96.4
Alberta	33.5	59.1	93.1	94.6	94.6	93.6	96.4	93.9
British Columbia	48.3	74.4	95.0	96.1	95.9	97.3	97.5	97.6
Canada (a)	17.8	34.5	67.6	72.3	76.0	79.1	81.5	83.4

(a) Exclusive of Newfoundland, Yukon and Northwest Territories.

Source: D.B.S. Vital Statistics, 1952, p. 37 and unpublished data.

TABLE 25 - PERCENTAGE OF TOTAL DEATHS OCCURRING IN HOSPITAL: BY PROVINCE,
1926, 1936, 1946, 1948, 1950, 1951, 1952, 1953

Province	1926	1936	1946	1948	1950	1951	1952	1953
Prince Edward Island	13.1	18.5	31.0	38.2	38.6	41.4	36.5	39.1
Nova Scotia	16.8	23.5	35.5	37.4	40.0	42.6	40.9	44.7
New Brunswick	16.7	23.7	33.4	39.9	40.6	41.0	41.6	43.8
Quebec	18.2	29.7	36.7	38.6	40.2	41.3	39.5	40.2
Ontario	28.3	36.1	48.7	47.9	48.7	50.1	50.6	52.2
Manitoba	35.7	41.9	53.1	53.8	56.7	58.5	59.8	62.6
Saskatchewan	27.8	38.5	58.9	64.0	67.7	67.9	68.5	71.4
Alberta	36.6	49.9	59.7	60.8	61.2	62.4	64.2	64.4
British Columbia	44.8	51.6	58.3	60.0	60.7	62.9	63.5	62.3
Canada (a)	25.0	35.1	46.0	47.4	48.8	50.1	50.1	51.5

(a) Exclusive of Newfoundland, Yukon and Northwest Territories.

Source: D.B.S. Vital Statistics, 1952, p. 48 and unpublished data.

deaths occurring in hospital. Nova Scotia has been consistently higher than the Canadian average with respect to births in hospital, and lower than the average with regard to deaths in hospital.

New Brunswick. New Brunswick has recorded a notable increase in total days of care and total hospital admissions between 1946 and 1951, with some decline since that time. Although days of care per thousand population in each of these years have remained well below the Canadian average, admissions per thousand population have been higher than the average Canadian rate. As indicated in Table 21, a low average length of stay in New Brunswick public general hospitals has enabled a great expansion of admissions to hospital without a corresponding increase in the days of care provided. Despite high rates of admission New Brunswick is somewhat below the Canadian average with respect to the proportion of births and deaths occurring in hospital, although a steady upward trend is evident.

Quebec. In Quebec, there has been a considerable increase in total days of care and in admissions over the period under discussion. Despite a rapidly growing population, both days of care and admissions per thousand population have steadily increased. Days of care provided per thousand population are slightly below the average for Canada as a whole, while admissions to hospitals per thousand are lower than in any other province except Newfoundland. The average length of stay in Quebec has remained high so that a larger number of days of hospital care are provided for each person discharged than in most other provinces. The percentage of total births in hospital has increased rapidly from 36 in 1946 to 60 in 1953, but remains the lowest of nine provinces; the percentage of deaths in hospital is also well below the Canadian average.

Ontario. The pattern of hospital utilization in Ontario parallels quite closely the average pattern for Canada as a whole. There has been a steady increase both in total days of care and in total admissions, as well as increases per unit of population. The average length of stay in Ontario has remained at about ten days per hospital separation. The proportion of deaths taking place in hospital has been slightly higher than in Canada as a whole reaching 52.2 percent in 1953. A very high proportion of births takes place in hospitals, in 1953 amounting to more than 95 percent.

Manitoba. In Manitoba, admissions to hospital have increased considerably year by year and the rate of admission per thousand population has also increased and is above the average for Canada as in the other three western provinces. Days of care per thousand population also exceed the Canadian average, but to a lesser extent because of a remarkably low average length of stay of separations. While the average length of stay in public general hospitals was as low as 9.6 days per separation in 1946, it had fallen to 8.5 days in 1953. Utilization as measured by the proportion of births and deaths occurring in hospital has shown a steady increase in Manitoba, and rates are well above the Canadian average.

Saskatchewan. Since the introduction of the Saskatchewan Hospital Services Plan in 1946, there has been a very considerable increase in days of care and admissions per thousand population in the province; since 1948, these have been the highest in Canada. There was more than

one admission for every five persons in the province in 1953, and two days of general hospital care for each person in the province were provided. In contrast to the general trend in Canada the average length of stay has increased slightly in Saskatchewan. The percentage of births occurring in hospital is very high - more than 96 percent in 1953. Despite the rural nature of the province the percentage of deaths occurring in hospitals has been the highest in Canada since 1948, reaching the remarkable figure of 71.4 percent in 1953.(1)

Alberta. In Alberta, admissions to hospital and days of care per thousand population in 1946 were among the highest in Canada. There have been substantial increases in total volume of days of care and admissions between 1946 and 1953, but because of the rapidly increasing population, and a declining length of stay, days of care per thousand population have increased only slightly. Admissions on the other hand have increased considerably when measured in terms of population, reaching 194 per thousand population in 1953. The high rate of admission in Alberta is made possible by a remarkably low average length of stay in hospital; it was the lowest in Canada from the years 1948 to 1950. Free hospitalization for maternity has enabled more than 90 percent of births to occur in hospital in each year between 1946 and 1953. The percentage of deaths taking place in hospital has risen steadily, reaching 64.4 percent in 1953.

British Columbia. Hospital utilization in British Columbia was already at a high level prior to the introduction of the British Columbia Hospital Insurance Service in 1949. Data for 1949-1953 show a great increase in utilization. In 1953, days of care per thousand population were second highest in Canada and admissions were the third highest. The percentage of births in hospital in British Columbia was at a remarkably high level even prior to the introduction of pre-paid hospital insurance. It has remained the highest rate in Canada each year, reaching a record breaking 97.6 percent in 1953. The percentage of deaths occurring in hospital in British Columbia seems to have stabilized at about 60 percent.(1)

(1) The utilization experience of the Saskatchewan Hospital Services Plan and the British Columbia Hospital Insurance Service differ somewhat from the general picture for each province. See Selected Public Hospital and Medical Plans in Canada. Dept. of N.H. & W., Research Division, Memo. No. 15, Social Security Series, 1955.

5. Acute Hospital Beds

Growth in the volume of hospital service required by the population has been accompanied by substantial increases in the supply of acute general and special hospital beds. Data presented below show that acute rated bed capacity in the **ten provinces increased** from 53,657 in 1948 to about 71,660 in the year 1954. Calculations based mainly on the findings of provincial health survey reports applied to the year 1954 indicate an over-all requirement of 83,221 beds leaving an estimated shortage of 11,561 beds at the end of 1954. This shortage will be reduced considerably when a further 7,843 beds, under construction early in 1955, are actually in use.

Expansion of Acute Beds Since 1948

From 1948, when the Hospital Construction Grant program was launched to December 31, 1954, 30,481 active treatment beds had been approved for construction as set out in Table 26 below. Beds completed numbered 12,352 up to the end of 1953, and 22,638 up to the end of 1954.⁽¹⁾ In terms of population, Table 27 shows that rated bed capacity increased from 4.1 beds per thousand persons in 1948 to 4.6 beds per thousand in 1953. It is estimated that the bed-population ratio reached 4.7 in 1954, without allowing for the replacement of obsolete beds. If additional beds planned or under construction at the end of 1954 were already completed, the over-all bed-population ratio would reach 5.2; however, population increases and abandonment of obsolete beds will reduce this ratio by the time the beds are actually completed.

Acute bed-population ratios continue to vary widely between provinces with the highest ratios obtaining in Prince Edward Island and the three western provinces of Saskatchewan, Alberta and British Columbia. At the end of 1954, estimated acute rated bed capacity per thousand population was as follows: Alberta - 6.4, Saskatchewan - 6.4, Prince Edward Island - 6.1, British Columbia - 5.9, Manitoba - 4.7, Nova Scotia - 4.7, Ontario - 4.5, New Brunswick - 4.1, Quebec - 4.1, and Newfoundland - 3.1.

Extent of Overcrowding

One yardstick of the general need for more hospital facilities is the extent of overcrowding in existing hospitals. This can be measured in approximate terms by comparing beds set up with rated bed capacity. The rated bed capacity of a hospital represents the number of beds the hospital is designed to accommodate based on

(1) Estimates of beds completed are derived from a complete review of hospital projects under the Hospital Construction Grant. In doubtful cases, the year of completion was estimated by comparing file data with information contained in the D.B.S. List of Hospitals and the Canadian Hospital Association Directory of Hospitals for various years.

TABLE 26. - ACTIVE TREATMENT HOSPITAL BEDS APPROVED FOR CONSTRUCTION AND ESTIMATED BEDS COMPLETED UNDER HOSPITAL CONSTRUCTION GRANT: BY PROVINCE, 1948 TO 1954

Province	Beds Approved for Construction up to December 31, 1954	Estimated Beds Completed up to December 31, 1954	Estimated Beds Completed up to December 31, 1953	Estimated Beds Completed During 1954	Beds Approved for Construction but not yet Completed December 31, 1954
Nfld.	281	184	184	0	97
P.E.I.	204	195	191	4	9
N.S.	1,357	1,004	735	269	353
N.B.	978	612	550	62	366
Que.	8,217	5,442	4,149	1,293	2,775
Ont.	10,010	7,886	6,090	1,796	2,124
Man.	1,907	1,131	1,081	50	776
Sask.	2,231	1,579	1,555	24	652
Alta.	2,891	2,373	1,969	404	518
B.C.	2,390	2,217	1,848	369	173
N.W.T. and Yukon	15	15	0	15	0
Canada	30,481	22,638	18,352	4,286	7,843

Source: Derived from records of the Health Grants Administration, Department of National Health and Welfare.

Province	Estimated Rated Bed Capacity				Estimated Rated Bed Capacity per 1000 Population		
	Dec. 31 1948 (b)	Dec. 31 1953 (c)	December 31, 1954		Dec. 31 1948	Dec. 31 1953	December 31, 1954 Existent and Under Construction
			Existent (d)	Existent and Under Construction (e)			
Nfld.	1,072	1,235 (f)	1,235	1,332	3.1	3.1	3.3
P.E.I.	426	633	637	646	4.6	6.1	6.2
N.S.	2,153	2,888 (g)	3,157	3,510	3.4	4.7	5.2
N.B.	1,811	2,165	2,227	2,593	3.6	4.1	4.7
Que.	13,828	16,700	17,993	20,768	3.7	4.1	4.7
Ont.	15,477	20,947	22,743	24,867	3.9	4.5	4.9
Man.	3,074	3,870	3,920	4,696	4.1	4.7	5.7
Sask.	4,613 (h)	5,590 (i)	5,614	6,266	5.5	6.4	7.1
Alta.	4,623	6,283	6,687	7,205	5.4	6.4	6.9
B.C.	5,580	7,078	7,447	7,620	5.2	5.9	6.0
(j) Canada	53,657	67,389	71,660	79,503	4.1	4.7	5.2

- (a) Includes non-federal public and private hospital beds exclusive of chronic and convalescent beds and tuberculosis units. Excludes bassinets.
- (b) Based on provincial health survey reports.
- (c) Based on D.B.S. Hospital Statistics, 1953, Vol. I, except where otherwise indicated.
- (d) Derived by adding estimated beds completed during 1954 under Hospital Construction Grant to estimated rated bed capacity at December 31, 1953.
- (e) Derived by adding beds approved for construction but not completed at December 31, 1954 to estimated existent rated bed capacity at December 31, 1954.
- (f) Based on data supplied by provincial health department.
- (g) Estimated by adding estimated beds completed under Hospital Construction Grant to rated bed capacity existing in 1948.
- (h) Based on provincial health survey report using provincial standards.
- (i) Based on data supplied by provincial health department using provincial standards. D.B.S. Hospital Statistics, 1953, Vol. I indicates a figure of 5,031 based on federal standards.
- (j) Excludes Yukon and Northwest Territories.

minimum standards of floor space per bed.(1) The actual number of beds set up from day to day is frequently more sometimes less than the rated capacity.

The relationship of beds set up to rated bed capacity at the end of the years 1948 and 1953 is shown in Table 28. It may be calculated from this table that the excess of beds set up over rated capacity was reduced from 6,138 in the year 1948 to 4,192 in the year 1953. For each 100 rated beds, approximately 115 beds were set up for service to inpatients in 1948, and 108 beds were set up in 1953. (2)

Acute Hospital Bed Needs

The calculation of hospital bed requirements is a formidable problem which involves consideration of a wide variety of factors affecting patterns of hospital usage. Some of these factors are the size and density of the population to be served, age distribution, birth and death rates, the prevalence of sickness, the availability of health personnel, the average length of stay in hospital, the availability of home care facilities, customs of hospital usage by the community and by the medical profession, and economic factors including arrangements for meeting the costs of care. Since conditions affecting these factors change over time, periodic review of bed requirements is necessary.

It is important to recognize, too, that the application of various bed-population ratios on a province-wide basis may conceal variations in the adequacy of facilities within a province. Patterns of hospital usage and resultant bed needs vary considerably among different local areas. Moreover, even though the overall bed-population ratio may appear to be satisfactory, certain areas may have more facilities than are required while others lack sufficient beds.

Total acute hospital bed requirements have been estimated as far as possible on the basis of studies made in provincial health survey reports for the year 1948. Actually, only five provinces established bed objectives to be reached over a period of years; four other provinces indicated a desirable bed-population ratio which could be applied to the population of the province in any particular

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- (1) Rated bed capacity is calculated in accordance with federal standards in most provinces, although the application of these standards may be less rigorous in some than in others.

Federal standards used for calculating payments under the Hospital Construction Grant provide a minimum of 80 square feet per adult bed (100 square feet in a private room); 50 square feet per child's crib (80 square feet in a private room); and 20 square feet for a bassinet in a nursery. Rated bed capacity reported to the Dominion Bureau of Statistics is based on similar federal standards except where provincial hospital standards are greater in which case provincial standards are used.

In the past, many hospitals have equated bed capacity with beds set up, have counted bassinets as part of total capacity, or have failed to report changes occasioned by internal rearrangement of beds. While reporting of rated bed capacity to the Dominion Bureau of Statistics has improved considerably in 1952 and 1953, earlier data are generally unreliable. Consequently, figures for 1948 in accompanying tables are based mainly on provincial health survey reports, while figures for 1953 are based mainly on Dominion Bureau of Statistics reports except where data from other sources have been considered to be more accurate.

- (2) These figures exclude the province of Quebec for which accurate data on rated bed capacity were not available.

TABLE 28. - ESTIMATED ACUTE HOSPITAL RATED BED CAPACITY IN RELATION TO ESTIMATED BEDS SET UP IN ACUTE HOSPITALS: BY PROVINCE, 1948 AND 1953(a)

Province	December 31, 1948			December 31, 1953		
	Rated Bed Capacity(b)	Beds Set Up(b)	Number of Beds Set Up per 100 Rated Bed Capacity	Rated Bed Capacity(c)	Beds Set Up(c)	Number of Beds Set Up per 100 Rated Bed Capacity
Nfld.	1,072	1,422	131	1,236(d)	1,573(d)	127
P.E.I.	426	468(e)	110	633(f)	580	92
N.S.	2,153	2,588	120	2,888	2,993	104
N.B.	1,811	2,338	129	2,165	2,403	111
Que.	13,828(f)	13,828	100	16,700(g)	16,700	111(h)
Ont.	16,477	18,302	111	20,947	23,050	110
Man.	3,074(i)	3,424	111	3,870(j)	4,085	106
Sask.	4,613	5,732	125	5,590(j)	6,119	109
Alta.	4,623	5,637	122	6,283	6,735	107
B.C.	5,580	6,006	109	7,078	7,343	104
Canada(k)	53,657	59,735	113(l)	67,489	71,581	108(l)

(a) Includes non-federal public and private hospital beds exclusive of chronic and convalescent beds and tuberculosis units. Excludes Indians.

(b) Based on provincial health survey reports except where otherwise indicated.

(c) Based on D.B.S. Hospital Statistics, 1953, Vol. I, except where otherwise indicated.

(d) Based on data supplied by provincial health department.

(e) Based on D.B.S. Annual Report of Hospitals, 1948.

(f) Estimated by adding estimated beds completed under the Hospital Construction Grant to rated bed capacity existing in 1948.

(g) Beds set up data used because no information available on rated bed capacity.

(h) Information not available.

(i) Based on provincial health survey report using provincial standards.

(j) Based on data supplied by provincial health department using provincial standards. D.B.S. Hospital

Statistics, 1953, Vol. I shows a figure of 5,031 based on federal standards.

(k) Excludes Yukon and Northwest Territories.

(l) Calculated for nine provinces excluding Quebec.

TABLE 29. - ESTIMATED ACUTE HOSPITAL RATED BED CAPACITY IN RELATION TO ESTIMATED ACUTE HOSPITAL BED REQUIREMENTS: BY PROVINCE, 1948 AND 1954(a)

Province	December 31, 1948			December 31, 1954		Beds Approved for Construction but not yet Completed: December 31, 1954(f)
	Estimated Total Bed Requirement(b)	Rated Bed Capacity(c)	Bed Shortage	Estimated Total Bed Requirement(d)	Estimated Rated Bed Capacity(e)	Bed Shortage
Nfld.	1,695(g)	1,072	minus 623	1,990(g)	1,235	minus 755
P.E.I.	465(g)	426	minus 39	525(g)	637	plus 112
N.S.	3,175(g)	2,153	minus 1,022	3,578(h)	3,157	minus 421
N.B.	2,350(i)	1,811	minus 539	3,055(j)	2,227	minus 828
Que.	18,940(g)	13,828	minus 5,112	21,940(g)	17,993	minus 3,947
Ont.	19,800(k)	16,477	minus 3,323	25,641(k)	22,743	minus 2,898
Man.	3,580(l)	3,074	minus 506	4,512(m)	3,920	minus 592
Sask.	6,225(n)	4,613	minus 1,612	6,225(n)	5,614	minus 611
Alta.	5,978(o)	4,623	minus 1,355	7,273(o)	6,687	minus 586
B.C.	7,249(p)	5,580	minus 1,669	8,482(p)	7,447	minus 1,035
Canada (q)	69,457	53,657	minus 15,800	83,221	71,660	minus 11,561
						7,843

(a) Includes non-federal public and private hospital beds exclusive of chronic and convalescent beds and tuberculosis units. Excludes bassinets.

(b) Based on findings in provincial health survey reports.

(c) Based on provincial health survey reports.

(d) Based on findings in provincial health survey reports projected to apply to year 1954.

(e) Derived by adding estimated beds completed during 1954 under Hospital Construction Grant to estimated rated bed capacity existing at December 31, 1953 as shown in Table 27.

(f) Derived from Table 26.

(g) Based on standard of 5 beds per 1,000 population.

(h) Recommended beds calculated to provide 5 beds per 1,000 for estimated 1961 population with adjustments for local conditions.

(i) Based on 1948 utilization.

(j) Recommended beds calculated on basis of 1948 utilization to meet needs arising in decade 1950-1960.

(k) Recommended beds calculated by projecting pattern of hospital bed demand up to 1948 to each of the years 1950, 1951, 1952, 1953 and 1954.

(l) Based on complex formula giving number of beds required for efficient service.

(m) Recommended beds considered sufficient for several years after 1950.

(n) Recommended beds based on bed-death formula with adjustments for special conditions in Saskatchewan. Objective applies to 20 year period.

(o) Based on standard of 7 beds per 1,000 population.

(p) Based on standard of 6.7 beds per 1,000 population.

(q) Excludes Yukon and the Northwest Territories.

year; one province did not analyse bed requirements. Despite the different approaches used by provincial survey committees, each provincial study reflects special conditions peculiar to the province. Consequently, an effort has been made to adapt provincial health survey findings to the situation existing at the end of 1954, rather than estimating current requirements by applying some uniform ratio such as 5 beds per 1,000 population to all provinces.

To estimate total requirements at the end of 1954, it is assumed the bed objectives of provincial planning in Nova Scotia (3,578 beds), New Brunswick (3,055 beds), Manitoba (4,512 beds) and Saskatchewan (6,225 beds) were valid for several years and could be applied without change to the year 1954. The province of Ontario established a bed objective of 25,641 beds applicable specifically to the year 1954. In British Columbia a bed requirement of 8,069 beds or 6.7 beds per 1,000 population was set for the year 1951; this bed-population ratio of 6.7 has been projected to the year 1954. Alberta recommended a bed-population ratio of 7 beds per 1,000 population, while Quebec and Newfoundland mentioned 5 beds per 1,000 population; these ratios have been applied to the estimated provincial populations in 1954. In the absence of other information from Prince Edward Island, a ratio of 5 beds per 1,000 population has been arbitrarily selected for this province.

Altogether, as shown in Table 29, estimated acute hospital bed requirements totalled 83,221 beds at the end of 1954 -- an over-all bed-population ratio of 5.5 beds per 1,000 population. In general, over-all bed requirements are highest in Saskatchewan, Alberta and British Columbia, where prepayment hospital care plans are in operation, and the per capita volume of hospital care is higher than in other provinces. Another important factor is the extent to which alternative special facilities are available for chronic patients. Thus, for example, Ontario's relatively low level of acute bed requirements in relation to population (5 beds per 1,000 population) may be attributed partly to the fact that many chronic patients are cared for in chronic hospitals or chronic units of general hospitals; on the other hand, Saskatchewan and Alberta with higher acute bed requirements (7.5 and 7 beds per 1,000 respectively) have very few separate beds for chronic patients.(1)

Comparison of estimated total bed requirements with existing rated bed capacity in Table 29 shows that total requirements increased from 69,457 in 1948 to 83,221 in 1954, while existing rated bed capacity rose from 53,657 to 71,660 over the same period. Thus, the estimated over-all bed shortage was reduced from 15,800 to 11,561 beds. Beds approved for construction but not yet completed by December 31, 1954 numbered 7,843. Excluding consideration of further population increases and abandonment of obsolescent beds, Table 29 indicates that five provinces will have a sufficient or nearly sufficient total number of acute beds when current construction has been completed.

It should be remembered, however, that future bed requirements are not static, but will change both in relation to an expanding population and future demand for hospital care. If the current requirement of 5.5 beds per 1,000 population is projected into the future, and an annual population increase of 400,000 a year is assumed, Canada will need 2,200 new beds each year apart from beds needed to replace obsolescent facilities. Furthermore, if upward trends in the per capita volume of hospital care continue, additional beds will be needed to meet the increased pressure on facilities.

(1) The chronic-convalescent hospital bed situation is discussed in Section 6 following.

Acute Hospital Bed Needs: by Province

Methods of determining acute hospital bed needs used by provincial health survey committees and the present hospital bed situation in each province are briefly discussed in the following paragraphs.(1)

Three basic methods, with variations, were used to estimate total bed requirements. Some health survey committees merely quoted standards proposed by various authorities based on the provision of a specified number of beds per thousand population. Others used the bed-death ratio based on the stable relationship existing between the number of deaths in hospital and the total number of days of hospital service provided.(2) A third approach was the utilization method, which simply projects current patterns or trends of hospital utilization into the future and relates them to population estimates.

Newfoundland. The Newfoundland Health Survey Committee recommended 5 beds per thousand population as a desirable ratio for active treatment beds.(3) Using this ratio, Table 29 shows that the bed shortage increased from 623 in 1948 to 755 in 1954. Even when the 97 beds under construction at the end of 1954 have been completed, the bed shortage will remain as great as in 1948. Bed increases are keeping pace with population growth, but are not sufficient to improve substantially the bed-population ratio of about 3.1 beds per 1,000 population.

Prince Edward Island. Prince Edward Island had about 6 acute beds per thousand population in 1954, and appears to be in a favourable situation. Few additional beds were being planned.

Nova Scotia. The Nova Scotia Health Survey Committee calculated active treatment bed requirements on the basis of population and also on the basis of maternity needs and the bed-death ratio.(4) On the basis of the 1948 population and a ratio of five beds per thousand the total immediate requirement in 1948 was 3,175 beds. The total bed requirement based on maternity needs and the bed-death

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- (1) It should be emphasized that conditions may have changed considerably since provincial health surveys were conducted in 1948. Data presented here on bed requirements and bed shortages do not necessarily reflect current thinking in each province. Nevertheless, reference to Table 29, Columns 6 and 7 shows that in most provinces, the number of beds being constructed coincides fairly closely with the number of beds needed as determined by applying provincial health survey findings to the year 1954.
 - (2) The bed-death formula, developed originally by the United States Commission on Hospital Care, is based on the discovery that in the United States the public uses about 250 days of general hospital care for each death occurring in hospital; in other words, for each death occurring in hospital seven-tenths of a bed is used for one year. By estimating the number of deaths expected to occur in hospital, it is possible to estimate the total days of hospital care required during the period of time under consideration.
 - (3) Newfoundland, Health Survey Committee, Newfoundland Health Survey Report, 1955, p. 74.
 - (4) Nova Scotia, Health Survey Committee, Report on the Survey of Hospitals in Nova Scotia. By Stewart, C.B. Halifax: The Committee, 1949, pp. 13-60.

ratio was 3,425 which represented 5.5 beds per thousand calculated on the 1948 population or just less than five beds per thousand of the 1961 estimated population. The bed requirements to provide five beds per thousand for the estimated 1961 population were 3,455, almost exactly the same as the figure reached by using the bed-death ratio. After making certain adjustments in consideration of local conditions, the total number of recommended beds was 3,578.

If 3,578 be accepted as the total bed requirement, the shortage in 1954 was 421, since estimated rated bed capacity was 3,157 at that time. This shortage will practically disappear when the estimated 353 beds under construction at the end of 1954 have been completed.

New Brunswick. In New Brunswick, the utilization basis of calculating bed requirements was selected as the most reliable by the Health Survey Committee.(1) The average daily census of public and private general hospitals was calculated to be 1,709 patients in 1949. Assuming that 80 per cent occupied beds was a desirable level of occupancy, the equivalent of 1,709 patients was expressed as 2,136 beds required for patients then hospitalized. An additional 10 per cent was added to meet the waiting lists in some hospitals and the inevitable increase in use which always accompanies the establishment of more adequate diagnostic and treatment facilities. Thus, the total requirement in 1949 was set at 2,350 beds which represented 4.6 beds per thousand population. To meet the needs of the next ten years, a minimum of a 30 per cent increase in demand for beds was postulated. This increase would be occasioned by population increase, by changing methods of medical practice and the increasing use of procedures best done in a hospital, the retention of patients who have gone out of the province to take advantage of hospital facilities elsewhere, the growth of prepayment plans or possibly hospital insurance and other factors. The bed objective between 1950 and 1960 is therefore 3,055. For the decade 1960-1970 a basis of 6.5 active treatment beds per thousand population was established as the minimal requirement. The need for 1970 was estimated at 4,361 beds.

New Brunswick's 1948 requirement of 2,350 beds was close to achievement by 1954 when 2,227 rated beds were in operation. On the basis of the long-term objective of 3,055 beds, however, there was still a shortage of 828 beds, which will be reduced considerably upon completion of 360 additional beds approved for construction at the end of 1954.

Quebec. The province of Quebec made no particular analysis of bed requirements except to note that commonly accepted standards suggest that there should be between 4.5 and 5.5 active treatment beds per thousand population.(2) There were 17,993 acute hospital beds existing in Quebec by December 31, 1954 whereas in terms of a ratio of 5 beds per 1,000 population, 21,940 were required making an arithmetic shortage of 3,947 beds. However, some 2,775 additional beds were under construction at this date.

Ontario. The Ontario Health Survey Committee estimated bed needs by projecting the recent pattern of hospital-bed demand into the future and relating it to the best estimate available on the province's population increase to 1954.(3) Because of variations

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- (1) New Brunswick, Health Survey Committee, Report on the Hospitals of New Brunswick. By Neergaard, Agnew and Craig. Fredericton: The Committee, 1951, PART THREE.
 - (2) Quebec, Ministere de la Sante, L'Enquete sur les Services de Sante de la Province de Quebec. Quebec: Ministere, 1951, Tome V, p. 4.
 - (3) Ontario, Health Survey Committee, Report of the Ontario Health Survey Committee. Toronto: The Committee, 1951, pp. 57-61.

in the pattern of hospital use in different parts of Ontario, these estimates were developed separately for each of seven hospital regions. The method used yielded a result expressed in terms of the number of days of hospital care needed by each thousand of the population, and reflected both admission rates and length of stay in hospital. The total days of care need in each region was reduced to the number of occupied hospital beds by dividing it by 365. Accepting 75 per cent of rated bed capacity as a good average level of occupancy under normal conditions, these figures were multiplied by 4/3 to give the estimated number of beds required.

The method used yielded a total requirement of acute general hospital beds of 19,800 in 1950, 21,438 in 1951, 22,900 in 1952, 24,322 in 1953 and 25,641 in 1954. In terms of population, acute bed requirements were 4.7 per thousand in 1951, 4.8 per thousand in 1952 and probably rising to 5 per thousand by 1954. The bed shortage in 1954 was 2,898, while the number of additional beds approved for construction at that time totalled 2,124.

Manitoba. Manitoba bed requirements were determined on the basis of a formula used by the United States Commission on Hospital Care⁽¹⁾. A theoretical high daily occupancy was calculated from bed capacity, patient days and average daily census. The number of beds which should be available in any period to give most efficient service was determined from this calculation. On this basis it was estimated that 3,500 beds were required in 1948 in contrast to the official rated bed capacity of 3,164. By December 31, 1950, some 4,512 beds were available or planned for construction. This represented 5.7 acute beds per 1,000 population which was accepted as a desirable ratio by the Manitoba Health Survey Committee. It was felt that when this phase of hospital construction was completed, that there would be very little need to extend the program with regard to acute beds any further in the immediate future.

Because a large number of obsolete beds had to be replaced, Manitoba still had an estimated shortage of 592 beds in 1954 based on the ratio of 5.7 beds per thousand population. However, 776 additional beds were approved for construction but not yet completed at that time.

Saskatchewan. In Saskatchewan an analysis of hospital bed needs was made as part of a master plan for the development of an integrated hospital system.⁽²⁾

Two formulae were used to estimate bed needs. The first formula was based on the different functions of community, district, regional and base centre hospitals and on the increasingly larger population which each of these categories of hospital serves. For this purpose minimum requirements for each local area served by a community hospital were set at 4.5 beds per thousand; district centre hospitals required 5.5 beds per thousand; regional centres required 6 beds per thousand; and base centres needed 7.5 beds per thousand. These ratios applied to all areas of the province resulted in a total requirement of 5,857 beds or an over-all ratio of 7 beds per thousand population.

(1) Manitoba, Advisory Health Survey Committee, An Abridgement of the Manitoba Health Survey Report. Winnipeg: Queen's Printer, 1953, pp. 57-58.

(2) Saskatchewan, Health Survey Committee, Saskatchewan Health Survey Report. II Hospital Survey and Master Plan. Regina: The Committee, 1951, pp. 35-44

The bed-death formula was also applied to Saskatchewan. This formula tended to confirm the bed requirements arrived at with the aid of the formula based on hospital function, especially in the number required for the province as a whole after special consideration had been given to the needs of the chronically ill. Using the bed-death formula it was estimated that 4,806 beds or 6 beds per thousand population were required for general hospital care. However, in Saskatchewan a larger than average amount of chronic care needs are being met in general hospitals, and this extra care was estimated to be the equivalent of one bed per thousand population. Thus, the over-all need is again 7 beds per thousand population.

Both these formulas when applied on a local, rather than a province wide basis, were adjusted to take account of special local conditions. As a result of these modifications and adjustments, the total number of beds recommended was somewhat higher than the number indicated as required by the formula. The total number of recommended beds was 6,225 or 7.5 beds per thousand, an objective to be achieved gradually over a 20 year period.

By 1954, estimated acute rated bed capacity in Saskatchewan was 5,614 beds, leaving a shortage of 611 beds. Additional beds approved for construction designed to fill this gap numbered 652 at the end of 1954.

Alberta. The Alberta Health Survey Report recommended that a ratio of 7 beds per thousand population for general hospital purposes be recognized as adequate for the province as a whole (1). At that time in 1950, the Committee went on record as believing that the total number of beds in use, plus those in process of construction, were sufficient for the needs of the province. However, the rapid growth of population in Alberta quickly put these facts out of date so that despite further planned construction, Alberta had an arithmetic bed shortage of 586 beds by December, 1954. A further 518 beds were scheduled for construction at the end of 1954.

British Columbia. A survey of hospital bed needs in British Columbia was undertaken by James A. Hamilton and Associates of Minneapolis in 1949(2). Of the various formulae available for determining bed needs, the birth-death formula was selected as the most suitable. The application of the formula was adjusted to the occupancy it was reasonable to expect according to the size of hospital, and for social, economic and geographic factors existing in each of the areas of the province.

It was found that there would be a total bed requirement of 8,069 beds for general acute care by 1951, a ratio of 6.7 beds per thousand population. By 1971 the need for beds for general acute care was expected to increase to 11,886, a ratio of 7.1 beds per thousand population. Applying the ratio of 6.7 beds per thousand population to the year 1954, the total requirement for that year was 8,482; existing rated bed capacity was 7,447. On this basis there was an estimated shortage of 1,035 acute-beds in 1954 which was being reduced somewhat by the construction of 173 additional beds.

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- (1) Alberta, Health Survey Committee, A Survey of Alberta's Health. Edmonton: Dept. of Public Health, 1950, p. 97.
(2) Hamilton, J.A. and Associates, A Hospital Plan for British Columbia. Victoria: Queen's Printer, 1950, pp. 18-25.

6. Chronic and Convalescent Hospital Beds

Partly as a result of the progress of medicine in treating acute diseases and partly because of the increasing proportion of the population in the older age groups, chronic diseases are constituting an increasing proportion of all illnesses. The existing medical and hospital care system, however, is organized primarily for the prevention and treatment of acute illness rather than the long-term diseases requiring prolonged care. Most provinces have made relatively little special provision for the care of the chronically ill.

Patients with chronic diseases may be distinguished from acute patients by their much longer average length of stay in hospital and by the nature of special services which are necessary. They include older persons suffering from diseases peculiar to the aging process and younger persons who have become victims of chronic disabling conditions of various origins. While some may be, in fact, incurable, others may be returned to a useful life benefitting from occupational and physical therapy and other aspects of rehabilitation. Types of institutions providing care for these patients include general hospitals, special chronic and convalescent hospitals or units and welfare institutions.

Some chronic patients occupy beds in almost every general hospital, despite efforts to limit or exclude the admission of such cases. This, of course, reduces the number of beds available for acutely ill patients. Some of the provincial health survey reports pointed out that treatment for the chronically ill is often limited in scope, and not the type best suited to the needs of the particular ailment.

Many other chronic patients are housed in nursing homes and in homes for the aged, infirm and permanently disabled. These institutions are designed primarily for persons who need only a home with some degree of custodial care; often they lack adequate medical and nursing facilities. Although such institutions supply accommodation for chronic and convalescent bed patients, they do not provide hospital care.

Special chronic and convalescent hospitals or special units attached to general hospitals have been developed in various provinces for patients who can benefit from rehabilitation services and for incurables whose suffering can be relieved. Ideally, such hospitals offer specialized facilities for diagnosis and treatment of chronic diseases and rehabilitation services including physical and occupational therapy, psycho-social adjustment and vocational training and guidance.

Existing Bed Facilities

Available data on chronic hospital bed facilities exclude institutions which provide custodial care and/or domiciliary care. Tables 30 and 31 below show that beds in chronic and convalescent hospitals or units numbered 6,714 in 1948, while 5,158 additional beds had been approved for construction under the Hospital Construction Grant up to December 31, 1954. The estimated number of existing beds was 10,717 at the end of 1954. The bed-population ratio increased from 0.5 beds per 1,000 population in 1948 to 0.7 beds per 1,000 population in 1954.

TABLE 30. - CHRONIC AND CONVALESCENT HOSPITAL BEDS APPROVED FOR CONSTRUCTION AND ESTIMATED BEDS COMPLETED UNDER HOSPITAL CONSTRUCTION GRANT: BY PROVINCE, 1948 TO 1954

Province	Beds Approved for Construction up to December 31, 1954	Estimated Beds Completed up to December 31, 1954	Estimated Beds Completed up to December 31, 1953	Estimated Beds Completed During 1954	Beds Approved for Construction but not yet Completed December 31, 1954
Nfld.	0	0	0	0	0
P.E.I.	57	0	0	0	57
N.S.	87	87	64	23	0
N.B.	170	91	91	0	79
Que.	1,472	1,396	1,197	199	76
Ont.	2,302	1,842	1,245	597	460
Man.	236	204	204	0	32
Sask.	90	71	62	9	19
Alta.	399	250	218	32	149
B.C.	345	170	118	52	175
N.W.T. and Yukon	0	0	0	0	0
Canada	5,158	4,111	3,199	912	1,047

Source: Derived from records of the Health Grants Administration, Department of National Health and Welfare.

TABLE 31. - ESTIMATED CHRONIC AND CONVALESCENT BEDS AVAILABLE AND BEDS AVAILABLE PER 1,000 POPULATION, 1948, 1953 AND 1954 (a)

Province	Estimated Beds Available					Estimated Beds Available per 1000 Population		
	Dec. 31 1948 (b)	Dec. 31 1953 (c)	December 31, 1954		Dec. 31 1948	Dec. 31 1953	December 31, 1954	
			Existing (d)	Existing and Under Construction (e)			Existing	Existing and Under Construction
Nfld.	147(f)	128	128	128	0.4	0.3	0.3	0.3
P.E.I.	0	0	0	57	0	0	0	0.5
N.S.	26	81	104	104	0.1	0.1	0.2	0.2
N.B.	26	89	89	168	0.1	0.2	0.2	0.3
Que.	2,627	3,578(g)	3,777	3,853	0.7	0.8	0.9	0.9
Ont.	2,090	3,225(g)	3,822	4,282	0.5	0.7	0.8	0.8
Man.	520(h)	678	678	710	0.7	0.8	0.8	0.9
Sask.	79	136	145	164	0.1	0.2	0.2	0.2
Alta.	160	172	204	353	0.2	0.2	0.2	0.3
B.C.	1,039 (i)	1,718(j)	1,770	1,945	1.0	1.4	1.4	1.5
Canada (k)	6,714	9,805	10,717	11,764	0.5	0.7	0.7	0.8

- (a) Excludes institutions which provide custodial care and/or domiciliary care only, and federal hospitals.
- (b) Based on Reporting Form C, provincial health survey reports except where otherwise indicated.
- (c) Based on D.B.S. Hospital Statistics, 1953, Vol. I.
- (d) Derived by adding estimated beds completed during 1954 under Hospital Construction Grant to estimated beds available at December 31, 1953.
- (e) Derived by adding beds approved for construction but not yet completed at December 31, 1954 to estimated beds available at December 31, 1954.
- (f) Based on D.B.S. List of Hospitals, 1949, which shows 147 beds in St. John's Home for Aged and Infirm.
- (g) Based on D.B.S. Hospital Statistics, 1953, Vol. I, including assumption that one-third of private hospital beds are chronic-convalescent.
- (h) Based on Reporting Form C, Manitoba Health Survey Report, plus inclusion of 430 beds in St. Boniface Home for Aged and Infirm.
- (i) Based on Reporting Form C, British Columbia Health Survey Report, plus inclusion of 329 beds in Provincial Infirmary.
- (j) Based on D.B.S. Hospital Statistics, 1953, Vol. I including assumption that four-fifths of private hospital beds are chronic-convalescent.
- (k) Excludes Yukon and the Northwest Territories.

Although the increment of chronic beds is much less, chronic beds have increased at a faster rate than acute beds. When beds under construction at the end of 1954 have been completed, chronic beds will have increased by 75 per cent from 6,714 beds to 11,764 beds since 1948; acute beds will have increased by 48 per cent from 53,657 beds to 79,503 beds.

Bed Requirements

The extent of bed requirements for chronic hospitals and units depends partly on decisions as to the extent to which alternative facilities should be utilized. Several provincial health survey reports attempted to obtain some indication of the number of chronic patients occupying beds in acute general hospitals. The Nova Scotia Survey indicated that 732 general hospital beds or more than one bed per thousand population were occupied by long-term patients. Similarly, in Saskatchewan, it was estimated that about one active treatment bed per thousand population was occupied by chronic patients. In Ontario, where a considerable number of chronic units, chronic hospitals and nursing homes are available, it was estimated that roughly 10 per cent of all hospital beds normally available for the acutely ill were occupied by chronic patients.

Only four provinces (Nova Scotia, New Brunswick, Quebec and Ontario) indicated specific ratios for chronic bed requirements. New Brunswick, Quebec and Nova Scotia used the ratio of 2 beds per thousand population, although Nova Scotia made special allowance for the fact that about one acute bed per thousand population was being used for chronic patients. In Ontario an upward trend of long-term care requirements was assumed and the need for beds was analysed on the basis of the utilization of chronic beds in 1948; the results indicated that the need for chronic beds would rise to about 1.5 beds per thousand population by 1954.

In the remaining provinces, where no estimate of chronic bed requirements was made in provincial health survey reports, it has been necessary to apply a rough ratio for purposes of estimating total requirements at the end of 1954. In British Columbia, although no bed requirement was stated, it would appear that in a province with a heavy load of chronic illness and with separate facilities frequently provided for chronic patients that two beds per thousand population would represent a minimum total requirement. In the other provinces where many chronic patients are treated in acute general hospitals, it would appear that one chronic bed per thousand population is probably a more realistic ratio. For purposes of estimating total bed requirements it is assumed that about one acute bed per thousand population is occupied by chronic patients in Newfoundland, Prince Edward Island, Manitoba, Saskatchewan and Alberta, thus leaving an additional requirement of one bed per thousand in each of these provinces.

On the basis of estimates of provincial requirements detailed above, a total requirement of 24,195 chronic hospital beds or 1.6 beds per thousand population was obtained for the year 1954 as shown in Table 32. Since at the end of the year 1954, 11,764 beds were in operation, under construction or planned, less than 50 per cent of this requirement will have been met when currently planned construction has been completed. In future years, of course, requirements will be altered by changing methods of hospital care, the increasing percentage of older people in the population, and many other factors.

TABLE 32. - ESTIMATED CHRONIC AND CONVALESCENT HOSPITAL BEDS AVAILABLE IN RELATION TO
ESTIMATED CHRONIC HOSPITAL BED REQUIREMENTS: BY PROVINCE, 1948 AND 1954 (a)

Province	December 31, 1948			December 31, 1954			Beds Approved for Construction but not yet Completed December 31, 1954
	Estimated Total Bed Requirement (b)	Beds Available (c)	Bed Shortage	Estimated Total Bed Requirement (b)	Estimated Beds Available (d)	Bed Shortage	
Nfld.	340 (e)	147	193	398 (e)	128	270	0
P.E.I.	93 (e)	0	93	105 (e)	0	105	57
N.S.	753 (f)	26	727	1,377 (f)	104	1,273	0
N.B.	996 (g)	26	970	1,094 (g)	89	1,005	79
Que.	7,576 (h)	2,627	4,949	8,776 (h)	3,777	4,999	76
Ont.	4,073 (i)	2,090	1,983	7,168 (i)	3,822	3,346	460
Man.	746 (e)	520	226	828 (e)	678	150	32
Sask.	838 (e)	79	759	878 (e)	145	733	19
Alta.	854 (e)	160	694	1,039 (e)	204	835	149
B.C.	2,164 (j)	1,039	1,125	2,532 (j)	1,770	762	175
Canada (k)	18,433	6,714	11,719	24,195	10,717	13,478	1,047

- (a) Excludes institutions which provide custodial care and/or domiciliary care only, and federal hospitals.
(b) Based on findings in provincial health survey reports or lacking these, on standards selected for reasons explained in the text.
(c) Based on provincial health survey reports.
(d) Derived by adding estimated beds completed during 1954 under Hospital Construction Grant to estimated rated bed capacity existing at December 31, 1953 as shown in Table 31
(e) Based on standard of one bed per thousand population.
(f) Based on Nova Scotia Health Survey Report which used standard of one bed per thousand population for immediate requirements and two beds per thousand population as requirement by the year 1961.
(g) Based on New Brunswick Health Survey Report which recommended standard of two beds per thousand population.
(h) Based on Quebec Health Survey Report which recommended standard of two beds per thousand population.
(i) Based on Ontario Health Survey Report which calculated needs by projecting pattern of hospital bed demand up to 1948 to each of the years 1950, 1951, 1952, 1953 and 1954.
(j) Based on standard of two beds per thousand population.
(k) Excludes Yukon and the Northwest Territories.

7. Federal Hospitals

Federal hospitals provide a wide variety of services to certain special groups in the population: the Armed Forces, war veterans, Indians, Eskimos, immigrants and sick mariners. Table 33 shows the distribution of hospitals and hospital beds among federal agencies in 1948 and 1953. The Department of Veterans Affairs operated the largest number of beds, 9,974 in the year 1953; the Directorate of Indian Health Services controlled 2,113 beds; the Department of National Defence had 925 beds; and the Quarantine, Immigration Medical and Sick Mariners Services maintained 373 beds.

Department of Veterans Affairs

Facilities administered by the Department of Veterans Affairs in 1953 included 12 active treatment hospitals, two health and occupational centres, one tuberculosis sanatorium and four veterans homes. Most beds are located in active treatment hospitals varying in size from the 144 bed Veterans' Hospital, Saskatoon to the 1,300 bed Sunnybrook Hospital in Toronto; the average size of hospital exceeded 600 beds. One or more hospitals are located in all provinces except Prince Edward Island and Newfoundland. (1)

Special facilities include health and occupational centres at Ottawa and Vancouver which serve as convalescent hospitals, and a tuberculosis sanatorium at St. Hyacinthe, Quebec. In the active treatment hospitals, special divisions provide treatment for mental conditions at Ste. Anne's Hospital and Westminster Hospital; for paraplegics at Queen Mary Veterans', Sunnybrook, Deer Lodge and Shaughnessy Hospitals; and for arthritis at Sunnybrook Hospital. Reassessment units designed for the assessment, treatment and rehabilitation of older veterans are now located in the larger active treatment hospitals.

The Department of Veterans Affairs also owns three Veterans' Pavilions totalling 588 beds, which are operated by community hospitals in Ottawa, Regina and Edmonton. Eligible veterans residing in locations without departmental facilities may obtain care in community hospitals at departmental expense.

In the fiscal year 1953-54, admissions to departmental institutions numbered 51,743 and to non-departmental hospitals, 17,965. Days of hospital care provided totalled 2,849,579 in departmental hospitals and 844,292 in non-departmental hospitals. Because of the large number of long stay cases, the average length of stay of separations was 43.9 days in departmental hospitals.

Department of National Defence

Hospitals reported by the Department of National Defence numbered nine in 1953; beds in four Department of Veterans Affairs hospitals were also utilized. Admissions during the year numbered 19,677 while patient days totalled 293,400.

(1) Active treatment hospitals include Camp Hill Hospital, Halifax; Lancaster Hospital, Lancaster, New Brunswick; Veterans' Hospital, Quebec City; Queen Mary Veterans' Hospital, Montreal; Ste. Anne's Hospital, Ste Anne de Bellevue, Quebec; Sunnybrook Hospital, Toronto; Westminster Hospital, London; Deer Lodge Hospital, Winnipeg; Veterans' Hospital, Saskatoon; Colonel Belcher Hospital, Calgary; Shaughnessy Hospital, Vancouver; Veterans Hospital, Victoria.

TABLE 33 - FEDERAL HOSPITALS AND HOSPITAL BEDS: BY OPERATING AGENCY
AND TYPE OF BED, 1948 AND 1953.

Class of Bed	Department of Veterans Affairs		Department of National Defence		Department of National Health and Welfare				All Agencies	
	Veterans Affairs		National Defence		National Health and Welfare		Quarantine, Immigration and Medical and Sick Mariners Services		All Agencies	
	1948	1953	1948	1953	1948	1953	1948	1953	1948	1953
Number of Hospitals	25	19	21	9	20	22	7	6	73	56
General Hospital Beds	6,160	7,181	1,005	925	420	549	204	280	7,789	8,935
Convalescent Beds	860	667	0	0	0	0	0	0	860	667
Mental Beds	1,200	1,550	0	0	0	0	0	0	1,200	1,550
Tuberculosis Beds	1,212	576	0	0	910	1,564	200	0	2,322	2,140
Other Beds	0	0	0	0	0	0	67	93	67	93
Total Beds	9,432	9,974	1,005	925	1,330	2,113	471	373	12,238	13,385

Source: D.B.S. Annual Report of Hospitals, 1948 and Hospital Statistics, 1953.

Department of National Health and Welfare

Indian Health Services. Health facilities for treatment of Indians and Eskimos included 18 hospitals with 2,113 beds and 33 nursing stations with 160 beds in 1953. The larger hospitals are sanatoria for the treatment of tuberculosis, while the smaller hospitals and nursing stations serve as rural community treatment centres. Departmental hospitals are located mainly in Ontario and the four western provinces; elsewhere Indian and Eskimo patients are usually hospitalized in non-departmental institutions.

The Directorate of Indian Health Services operates five nursing stations in Quebec, one in New Brunswick and one in Nova Scotia. Facilities in Ontario include the Moose Factory and Sioux Lookout Hospitals each with a tuberculosis unit, one small community hospital and six nursing stations. In Manitoba, three tuberculosis sanatoria are operated for the Department by the Manitoba Sanatorium Board; other federal facilities include three small general hospitals and seven nursing stations. Two general hospitals with tuberculosis units are maintained in Saskatchewan as well as three nursing stations. The Charles Camsell Indian Hospital at Edmonton, Alberta, with almost 600 beds is the largest tuberculosis sanatorium; other facilities include three small general hospitals and three nursing stations. Three tuberculosis sanatoria are operated in British Columbia and six nursing stations in the Northwest Territories.

During the year 1953, a total of 35,346 Indians and 1,029 Eskimos were admitted to departmental and non-departmental hospitals. Indian admissions to departmental hospitals included 9,201 general cases and 1,581 tuberculosis cases. Patient days in departmental and non-departmental hospitals combined totalled 1,469,241 for Indians and 148,723 for Eskimos. Indian patient days in departmental hospitals included 552,094 for tuberculosis cases and 134,507 for general cases.

Quarantine, Immigration Medical and Sick Mariners Services. This Service operates a marine hospital at Sydney, Nova Scotia, immigration hospitals at Halifax, Saint John and Quebec City, and two small leprosaria, one at Tracadie, New Brunswick and one at Bentinck Island, British Columbia. In practice, institutions other than the leprosaria are used for treatment of sick mariners, immigrants, Indians and Eskimos. In 1953, admissions numbered 544 and days of care totalled 11,127.

8. Planning, Administration and Standards

In order to provide an efficient hospital service, more is required than simply an adequate number of beds, personnel and special facilities. Hospital authorities agree that the planning of hospital facilities in accordance with community needs necessitates a proper distribution of beds between different areas and integration of hospital services so that patients may be treated and technical services provided in the most suitable hospitals. In addition, measures to promote adequate standards of patient care are necessary.

The improvement of hospital service is a cooperative effort between the hospitals and government health departments. Leadership comes from the Canadian Hospital Association, the Catholic Hospital Association of Canada, the Canadian Medical Association, and various other national and provincial organizations interested in all or certain parts of hospital care. Standardization, education and surveys are the principal tools used by the various agencies to stimulate hospital efficiency. Provincial hospital surveys carried out during the past few years have contributed much to improved planning, integration and standards.

Distribution of Facilities

The planning of the location of hospitals involves consideration of various socio-economic factors. Among such factors are population distribution and trends; the size of communities; the location of adjacent well-equipped hospitals; prevailing patterns of hospital usage; local health indices; the availability of physicians, nurses and other personnel and the financial ability of the local area to construct and maintain a hospital. Analysis of these items logically leads to a master plan to serve as a blueprint for developing the essential hospital facilities in the proper locations.

In general terms, as pointed out in one hospital survey report, "All the above factors - the gradual concentration of population in urban centres, the improvement in transportation, the increasing complexity and cost of hospital equipment, the desire of most physicians to work in association with their confreres, and the importance of providing high standards of care -- point to a gradual decline in the number of very small institutions, and the necessity for improving the facilities in those of medium and large size".⁽¹⁾ While this implies greater concentration of facilities in larger population centres, there remains the frequent objection by small communities that "only by having a hospital can we retain a doctor in our community". As mentioned in a number of provincial health survey reports, special problems arise in rural areas where public demand may lead to the planning of many small hospitals involving costly duplication of facilities if good care is to be provided.

Generally speaking, the development, location and size of hospitals has varied with the way each community interpreted its needs and was financially able to meet them. With the possible exception of Newfoundland, the major responsibility for a decision to build a hospital has rested at the local level. In recent years, however, central planning has been

(1) Saskatchewan Health Survey Committee, Saskatchewan Health Survey Report. II Hospital Survey and Master Plan. Regina: The Committee, 1951, p. 40.

encouraged by the development of provincial and federal hospital construction grants. Each province can use the federal hospital construction grant as a means of encouraging or discouraging local hospital construction projects. Federal regulations state that each project submitted for approval shall be in accordance with a system of priorities based on the relative need throughout the province for hospitals, community health centres, living quarters for nurses and combined laboratory facilities.(1)

Integration of Facilities

Most provincial hospital survey reports envisaged the development of integrated hospital systems. In each instance, the province was divided into a number of hospital regions, and hospitals were classified as community, district, regional or base hospitals in accordance with modern hospital planning concepts. Generally, community and district hospitals were defined as small local units without highly specialized services; regional hospitals supplied a much wider range of services to a large area; while very large hospitals usually associated with university teaching centres were designated as base hospitals.

Emphasis was placed on the need for the development or expansion of regional hospital centres, and on closer relationships between hospitals to avoid duplication and reduce costs. Regional centres would have out-patient departments, and special units for the care of patients with communicable diseases, mental disease, chronic diseases and patients requiring convalescent care. Community and district hospitals would be encouraged to transfer patients requiring comprehensive investigation or treatment to regional and base hospitals, where consultative and specialist services would be available. Conversely, the small hospitals would draw upon the larger hospitals for consultant services in radiology, pathology and other specialties.

Another aspect of integration relates to the coordination of hospital services with other health services. Modern concepts of health organization include the idea that the hospital should serve as the community health centre by providing space for preventive services such as immunizations, pre-natal care and well-baby clinics. Some authorities have suggested that the offices of physicians and dentists might even be located in the hospital building. To coordinate the efforts of all community health agencies, hospital regions and districts have been planned in relation to public health districts in some provinces.

Standards of Patient Care

For years there has been a growing recognition of the need to improve standards of hospital care. An integrated hospital plan implies a system of hospital grading and inspection which would define requirements for essential services in different classes of hospitals. Although such grading systems are only partially developed, most provinces have Public or Private Hospitals Acts which authorize provincial inspection and regulation of hospitals. Provincial control may be exercised over financial and administrative practises, professional procedures and techniques of patient care, and physical facilities including sanitation, equipment, hazards and so on. These laws set out minimum legal requirements for the safe care of patients.

(1) P.C. 1954 - 15/659.

The hospitals themselves, however, are more interested in high quality care than in minimum standards. This desire to develop and maintain the highest standards has found expression in the development of voluntary accreditation programs. Accreditation of American and Canadian hospitals was carried out by the American College of Surgeons from 1918 to 1953 when responsibility was transferred to the Joint Commission on Accreditation of Hospitals. In the same year the Canadian Commission on Hospital Accreditation was formed by the Canadian Hospital Council, the Canadian Medical Association, L'Association des Medecines de Langue Francaise du Canada, and the Royal College of Physicians and Surgeons of Canada, and a program was launched in cooperation with the Joint Commission on Accreditation of Hospitals of the United States and Canada.

The objectives of the Canadian Commission on Hospital Accreditation are as follows:

1. To conduct an inspection and accreditation program which will encourage Canadian physicians and hospitals voluntarily;
 - (a) to apply certain basic principles of organization and administration for efficient care of the patient,
 - (b) to promote a high quality of medical and hospital care in all its aspects, and
 - (c) to maintain the essential diagnostic and therapeutic services in the hospital through the co-ordinated effort of the organized medical staff and the governing board of the hospital;
2. To establish standards for hospital operation and to assist hospitals to attain these standards;
3. To recognize compliance with standards by the issuance of certificates of accreditation;
4. To assume such other responsibilities and to conduct such other activities, particularly of an educational nature, as are compatible with the operation of a hospital accreditation program.

Newfoundland

The planning and organization of hospitals revolves around the cottage hospital system in Newfoundland. Provincially operated cottage hospitals and nursing stations are located in most of the outlying areas of the province, although Northern Newfoundland and Labrador are served by the International Grenfell Association and Notre Dame Bay by the Notre Dame Bay Hospital Association. The larger population centres of Cornerbrook, Grand Falls and St. John's also have voluntary hospitals. The provincially operated St. John's General Hospital, however, serves as the base hospital centre where highly specialized technical services are made available to the whole province.

Provincial ownership of many general hospitals has permitted central planning of hospital locations, integration of hospital services and close cooperation between the

St. John's General Hospital and other hospitals throughout the province. Provincial licensing and inspection of non-governmental hospitals has not been undertaken, although some legislative provision exists in the Health and Public Welfare Act of 1931. Control and supervision over standards of care in cottage hospital districts is exercised by the provincial health department.

Prince Edward Island

Hospital affairs in Prince Edward Island are governed by the Hospital Act, but no full-time inspection service has been developed. The entire province is considered as one hospital region, with the largest general hospitals located in Charlottetown and Summerside. The provincial health department maintains close relationships with the hospitals operated by voluntary authorities, and has integrated clinical laboratory facilities under provincial supervision.

Nova Scotia

Hospital facilities of medium and small size are widely distributed in Nova Scotia; the city of Halifax contains the provincially operated Victoria General Hospital where specialist facilities and services are available to the considerable number of patients referred from all parts of the province. The Nova Scotia Health Survey Report recommended the development of an integrated hospital system based on nine hospital regions, each with a regional hospital centre. Other types of hospitals in the integrated scheme would be termed community hospitals, district hospitals and provincial hospitals (i.e. Victoria General Hospital).

Hospital inspection in Nova Scotia is carried out by the Inspector of Humane and Penal Institutions, while other hospital affairs are administered directly by the Deputy Minister and Assistant Deputy Minister of Health.

New Brunswick

In New Brunswick, most hospitals are operated by voluntary lay and religious corporations, although a few are municipally administered. The coordination of services and administration of the Public Hospitals Act are responsibilities of the Division of Hospital Services in the Department of Health and Social Services. The development of an integrated hospital plan was recommended in the New Brunswick Hospital Survey Report which proposed the division of the province into five hospital regions with five regional centres and three sub-centres.

Quebec

Hospitals in Quebec, operated largely by religious authorities and lay corporations, are controlled by the Public Charities Act and Private Hospitals Act. Classification and inspection are administered by the Division of Public Charities in the provincial health department. The Quebec Health Survey Report recommended the division of the province into twelve hospital regions, each with at least one large hospital to serve as the regional centre. Further study of hospitalization problems was launched in 1954, when the Quebec legislature authorized the formation of a special committee to review facilities, co-ordination, standards and related questions.

Ontario

Provincial supervision of public hospitals in Ontario, exercised through the Public Hospitals Act, includes approval of hospitals as public hospitals, administration of grants, and regulations dealing with subjects such as classification of hospitals, inspection, treatment of patients, records and audits. Private hospitals are licensed under the Private Hospitals Act. Administration of the Public Hospitals Act, the Hospitals Aid Act, the Private Hospitals Act, and the regulations under these acts, is the principal function of the Public and Private Hospitals Division.

Regional hospital planning for Ontario was dealt with at length in the provincial Health Survey Report, and is discussed below in some detail as illustrative of comprehensive planning concepts. In Ontario seven hospital regions were outlined and planning is based on a classification of five basic types of hospital service required. These are:

- Type A - Public general (providing expert medical and nursing care and all facilities for diagnosis and treatment of the acutely ill or injured and for maternity cases).
- Type B - Convalescent (providing medical and nursing care and facilities for rehabilitation).
- Type C - Long term hospitals (providing less specialized medical and nursing care with facilities for the rehabilitation of those patients who may be improved and domiciliary care for those unlikely to improve).
- Type D - Welfare institutions (for the aged and infirm - those who are bedridden, those with incapacities and not requiring continuous treatment but rather guidance and those in need of living accommodation only).
- Type E - Special hospitals (for mental illness, tuberculosis, alcoholism, cerebral palsy, etc.).

Public general hospitals were grouped into four classifications, the regional centre, district centre, community centre and health centre. Each regional centre hospital is a large unit from 350 to 1,000 beds situated in a large urban centre and associated where possible with a medical school. Besides supplying a full range of diagnostic and treatment service, it would provide facilities for teaching and research. Suggested regional centres were London, Hamilton, Toronto, Kingston, Ottawa, Sudbury and Fort William or Port Arthur.

The district centre hospital ranging in size from 100 to 350 beds would provide all services basic to an active treatment hospital including pathology and radiology. The community hospital ranging from 100 beds down to 20 would obtain specialized pathology and radiology in co-operation with the nearest district or regional hospital; clinical laboratory and x-ray facilities would, however, be available to general practitioners in the local area served. The health centre, equivalent to a community clinical or

medical-nursing unit, would serve areas lacking the population and resources necessary to support a small community hospital; its in-bed care being limited to maternity, minor medical cases and emergency treatment for accident or surgical cases. Although its primary function would be to provide x-ray and laboratory diagnostic facilities to physicians practising in the area, the health centre might also include office for the local health department, physicians and possibly dentists.

Manitoba

Following a study by Dr. Karl E. Buck entitled "Public Health in Manitoba 1941", a survey of the hospital situation in Manitoba was undertaken by a special Hospital Commission. Following the recommendations of this survey, a permanent Hospital Council was appointed in 1944, and required to arrange for the inspection of hospitals, to make investigations and surveys in respect of matters relating to hospitals and to make recommendations as to the location, size, administration or operation of any hospital. Upon the advice of the Hospital Council, the province was divided into three divisions centred about the base hospitals in Greater Winnipeg, Brandon and Dauphin. Within these areas further provision was made for some 34 hospital districts with local boards empowered to construct and operate hospitals.

The 1945 Health Services Act provided the administrative machinery for the establishment of hospital districts; delineated specific responsibilities of local hospital boards and outlined approved methods of financing both construction and maintenance costs. An Advisory Commission was formed under the Act and given powers to make regulations regarding the administration of hospitals. The Act further provided that proposed plans, location, size and initial cost of hospitals were subject to approval of the Municipal and Public Utility Board in regard to financial implications, and to approval of the Minister, the Hospital Council of Manitoba and the Advisory Commission as to other features.

At the present time, any community may form a hospital district irrespective of municipal boundaries, provided that the scheme is supported by two-thirds of the votes cast by resident ratepayers. The Bureau of Hospitalization in the Section of Extension Health Services is responsible for the inspection of hospitals and for the provision of technical advisory services to local boards. The Bureau also licenses private hospitals, administers construction and maintenance grants and performs related functions.

Saskatchewan

The Saskatchewan Health Survey Committee prepared a master plan for the development of an integrated hospital system with long-term goals set for realization by 1971. Four classes of general hospitals and medical service centres were designated as follows: base centres, regional centres, district centres and community centres including nursing homes and health centres. The populated half of the province was divided into hospital service areas comprising the area served or to be served by a local hospital. These areas were grouped into hospital service districts with one hospital being designated as the district centre. Hospital service districts were grouped into 12 health service areas, coinciding with the proposed health regions for public health services. Two regional health service centres in Regina and Saskatoon were designated as base hospital centres.

Most Saskatchewan hospitals are small district or community centres operated by municipalities and widely distributed throughout the rural areas. As far back as 1916 legislation was passed providing for the establishment of union hospital districts representing member towns, villages and rural municipalities for the purpose of erecting and maintaining hospitals. By the end of the fiscal year 1952-53 there were 106 union hospital districts containing hospitals whose capital costs were supported mainly from local tax funds.

Hospital inspection and regulation of hospital standards is authorized by the Saskatchewan Hospital Standards Act, administered by the Division of Hospital Administration and Standards in the Medical and Hospital Services Branch. In addition to supervision of standards, the Division promotes better hospital care through technical consultative services to hospitals in nursing, administration, laboratory and x-ray technology and dietetics. Instructional courses are offered for various types of hospital, technical and administrative personnel.

Alberta

Hospital services in Alberta are organized and controlled under the Hospitals Act, the Municipal Hospitals Act, the Private Hospitals Act, and an Act to Incorporate the Associated Hospitals of Alberta. Under these statutes various regulations are in effect designed to safeguard the public in receipt of hospital services. General direction of hospitals in the province is the responsibility of the Division of Hospital and Medical Services. Among its responsibilities are the supervision of approved, private and chronic hospital services, consultation relating to hospital administration and techniques, and the approval of plans for new hospital buildings or major changes in buildings.

Hospital facilities in rural Alberta are provided mainly through municipal hospital districts. More than 60 of these districts have been organized under district hospital boards to administer hospital facilities and supply hospital services under the municipal dollar a day scheme. After a scheme has been planned, it must be approved by two-thirds of the voters in the proposed hospital district.

The Alberta Health Survey Report recommended adequate hospital service for all areas provided through more than 80 small hospital districts. Three grades of general hospital service were recognized: ordinary hospital service in all local hospitals "routine referred work" in regional hospitals situated in the larger centres and "Special referred work" including a few highly technical procedures in base hospitals of which there was one in Alberta.

British Columbia

Provincial inspection and control of general, chronic and convalescent hospitals and the licensing and inspection of private hospitals are provided for in the Hospital Act which is administered by the British Columbia Hospital Insurance Service. The Hospital Consultation and Inspection Division assists hospitals with administrative problems, licenses private hospitals, and inspects both public and

private hospitals. Advisory services relating to hospital construction are provided by the Hospital Construction Division; this service includes the processing and reviewing of plans and inspection of proposed sites. Additional planning and advisory services are provided by the Medical Consultation Division, the Research Division and the Liability and Adjustment Division.

A long range plan for the development and integration of hospital facilities was embodied in the 1949 Hamilton Report which envisaged dividing the province into six regions and developing within each region four types of hospital units. These four types were referred to as Community Clinics and Health Centres, Community Hospitals, Regional Hospitals, and Teaching or Base Hospitals, and their functions paralleled those of the four types of hospital previously described for Ontario and Saskatchewan.

9. Financing Hospital Capital Costs

Hospitals represent a major investment in land, buildings and equipment, and form an important segment of Canada's "social" capital. In 1953, 685 public general and allied special hospitals reported total plant assets valued at about \$486 million.(1) If all types of hospitals were included, total valuation was broadly estimated to exceed one billion dollars.

Much of the capital expenditure on hospital facilities has occurred since the end of World War 2. Between 1946 and 1954 estimated construction expenditures totalled \$669 million. Table 34 below shows that annual capital expenditures rose steadily from \$22.3 million in the year 1945 to about \$117 million in 1954. This upward trend reflects the decreased purchasing power of the construction dollar as well as a higher rate of expansion of facilities.

TABLE 34.-CAPITAL EXPENDITURES ON HOSPITALS, 1945 TO 1954

Year	Capital Expenditures Millions of dollars
1945	22.3
1946	28.3
1947	33.1
1948	55.6
1949	71.4
1950	73.0
1951	79.0
1952	93.3
1953	118.3
1954	117.0(a)

(a) Preliminary.

Source: Department of Trade and Commerce, "Private and Public Investment in Canada".

Costs of Construction

The cost of constructing hospital beds varies widely among different hospitals. Generally, however, large active treatment hospitals requiring many auxiliary facilities are

(1) Dominion Bureau of Statistics, Hospital Statistics, 1953
Vol II, p. 174.

the most expensive type of hospital. Chronic and mental hospitals or small community hospitals usually cost less per hospital bed.

Analysis of the costs of construction of new hospitals completed under the Hospital Construction Grant Program throws some light on the relative costs of different types of hospitals. Among new hospitals completed between March 31, 1949 and March 31, 1955, the average cost per bed was as follows: tuberculosis sanatoria - \$12,300; active treatment hospitals - \$11,700; chronic-convalescent hospitals - \$8,300; and mental hospitals - \$6,000.(1) These data are, of course, influenced by many factors such as whether the hospitals were large or small, whether they were constructed some years ago or recently, and whether they were built in high cost or low cost locations.

The significance of hospital size may be illustrated by comparing the average cost per bed of new active treatment hospitals under 50 beds with hospitals over 50 beds in size. Between 1949 and 1955, the former group averaged \$6,700 per bed, while hospitals over 50 beds in size had an average cost of construction of \$13,200 per bed.

The upward trend in construction costs in recent years may be illustrated by considering projects completed in each fiscal year. The average cost of construction of new active treatment hospital beds by year of completion runs as follows: fiscal year 1949-50 - \$6,300; 1950-51 - \$8,100; 1951-52 - \$11,300; 1952-53 - \$13,400; 1953-54 - \$13,300; 1954-55 - \$13,500.

Sources of Funds

The problem of obtaining funds for capital expansion was aggravated in the post-war period, by the sharp rise of costs for labour, construction materials and equipment. Although tax funds had long been used for the construction of certain special hospitals operated mainly by governments, voluntary hospitals were traditionally dependent on the effort and benevolence of private groups and individuals. While philanthropic donations remain important, increased emphasis has been placed on government capital grants designed to stimulate construction of facilities in accordance with social needs.

Data reported to the Dominion Bureau of Statistics by 444 public general hospitals for the year 1953, illustrate the significance of the contribution by governments. In that year, 46 percent of the funds provided for new construction or additions to physical plant came from government sources, including 28 percent from provincial governments, 11 percent from municipal governments and 7 percent from the federal government. Mortgage loans and debentures accounted for 21 percent of the funds, private grants and donations supplied 20 percent, and other hospital funds covered 13 percent.(2)

Philanthropy: Funds for the construction or extension of voluntary non-profit hospitals still come to a considerable extent from individual and corporate donations, religious organizations sponsoring hospitals, and loans repaid

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- (1) Based on unpublished data supplied by Health Grants Administration, Department of National Health and Welfare.
(2) Based on unpublished data supplied by Dominion Bureau of Statistics.

out of hospital operating revenues. In many instances, capital investment is derived from public subscription drives in which many individuals participate. Significant amounts are contributed by commercial and industrial firms; in 1951, about 31 percent of all corporate charitable donations were allocated to hospitals for capital purposes. (1) The federal government indirectly encourages philanthropic contributions to hospital capital funds by permitting deduction of such donations from income for tax purposes.

Municipalities: Support from municipalities in the development of community hospital facilities has taken the form of special tax exemptions, direct lump-sum grants, payment of deficits incurred in amortizing capital costs, or the guarantee of hospital bonds. Other communities lacking sufficient voluntary facilities have constructed hospitals financed from municipal tax funds. Such municipal hospitals may be administered either by the general local government authority or by a special local authority set up for hospital purposes.

The problem of financing hospital construction has been particularly difficult in sparsely settled and low income area. Few rural municipalities have a sufficiently large tax base to finance the construction and maintenance of a hospital. Accordingly, some provinces, particularly the Prairie Provinces, have authorized the formation of special hospital districts for the development of facilities.

Since 1945, under authority of the Manitoba Health Services Act, any group of municipalities may organize a hospital district, and finance construction of facilities on sanction of 60 percent of the resident ratepayers of the whole area. The annual tax levy for capital purposes must be between 10 percent and 30 percent of the capital cost, and may not exceed 2 mills in any municipality. Hospital districts numbered 34 in 1953.

In Saskatchewan, legislative provision enabling towns, villages and rural municipalities to form union hospital districts dates back to the year 1916. Tax levies imposed by union hospital districts or municipal authorities for hospital capital purposes range from one to two mills, with most districts limited to a capital debt requiring a tax levy not in excess of two mills per annum on the taxable assessment. There were 106 union hospital districts at the end of the year 1952.

The municipal Hospitals Act of Alberta provides authority for the establishment of hospital districts at the request of municipal ratepayers or councils. District boards may develop schemes for prepaid "dollar a day" hospital care as well as for the construction of hospital facilities; two-thirds of the voting ratepayers must approve any particular scheme. More than 60 municipal hospital districts have been established.

Provincial Governments: Provincial governments today play a major role in financing hospital capital costs. In earlier years, tax funds were used to construct provincially owned mental hospitals and tuberculosis sanatoria. During the past ten years, however, all provinces have provided capital grants for municipal and voluntary general and allied special hospitals.

(1) Shea, Albert A., Corporate Giving in Canada, Clarke, Irwin and Company Limited, Canada, 1953, p.50.

The first province to introduce capital grants for approved construction projects was Saskatchewan in the year 1944; grants were allocated on an equalization basis, the larger amounts per bed being given in low assessment areas. Ontario introduced capital grants in 1947; these included \$1,000 per bed in general hospitals not to exceed 25 percent of the total cost, and \$2,000 per bed for chronic and convalescent beds not to exceed 50 percent of the cost. The province of Quebec provided assistance through grants payable over a number of years which could be used to pay interest and principal on hospital debentures.

Since 1948, all provinces have participated in the federal-provincial hospital construction grant program, under which provincial governments at least match federal grant contributions. In various instances, provincial grants exceed the federal contribution. In Newfoundland, for example, the provincial government pays the balance of capital costs for provincially owned cottage hospitals. Ontario has continued the grants begun in 1947, has added special grants for psychiatric units in general hospitals, auxiliary services accommodation such as x-ray departments, nurses' residences and so on, and has made supplementary special capital grants to existing hospitals allocated on the basis of bed capacity.(1) British Columbia now pays up to 50 percent of the fixed capital cost, and one-third of the cost of movable equipment in new hospitals or new additions to hospitals. Other provinces, too, may make special grants for capital purposes.

Hospitals in certain provinces with public hospital care plans obtain further provincial assistance in financing capital and interest costs. Both the Saskatchewan Hospital Services Plan and the British Columbia Hospital Insurance Service include depreciation allowances in their payments to hospitals for services rendered.

Federal-Provincial Hospital Construction Grant

It soon was apparent in the post-war period that the acute shortage of hospital accommodation had become a nationwide problem. As part of the National Health Grant Program

(1) Capital grants were available in Ontario in 1954 as follows:

- (a) \$1,000 per bed for active treatment beds, not exceeding 50 percent of costs; (b) \$2,000 per bed for chronic or convalescent beds not exceeding 50 percent of cost; (c) one-third of cost of construction or 50 percent of cost of alterations for Red Cross Hospitals; (d) \$8,500 per bed for beds in psychiatric units of general hospitals having more than 200 beds; (e) \$1,000 per bed for beds in nurses' residences not exceeding 50 percent of cost; (f) \$1,000 per 300 square feet of Out-Patient Department or Auxiliary Services Accommodation including autopsy room, clinical laboratory, dispensary, x-ray department, occupational therapy department, physiotherapy department and space for community health services not exceeding 50 percent of the cost; (g) \$300 per bed for buildings and equipment for all recognized beds in existing public hospitals.

introduced in 1948 \$13 million a year for a five year period was made available for outright hospital construction grants to be distributed among the provinces on a population basis. In 1953, the annual sum available for new projects was reduced to \$6,729,698.

Under the terms of the Hospital Construction Grant the federal government may contribute up to \$1,000 for the construction of each approved active treatment bed, and \$1,500 for each chronic or convalescent bed, including beds for tuberculosis or mentally ill patients. In addition, \$1,000 may be paid for every three new bassinets, for each 300 square feet of interior floor space of a community health centre up to a maximum of 4500 square feet, and for each 300 square feet of a combined public health and clinical laboratory up to a maximum of 25,000 square feet; also \$500 per bed may be paid for each bed in a new nurses quarters. In each instance, the federal grant may not exceed one third of the total cost of the construction project, and in all cases the province is required to at least match the federal grant.

During the first seven years of the program, about \$80 million were made available by the federal government. Amounts actually expended during this period totalled approximately \$54.2 million or 68 percent of the amount available. Percentages spent by province varied from 55.8 percent in Newfoundland to 79.4 percent in Alberta.(1)

(1) Based on data supplied by health grants Administration, Department of National Health and Welfare.

10. Financing Hospital Operating Costs

As is well known, the cost of hospital care has increased greatly in recent years. By 1953, the combined net operating expenditure of all types of hospitals in Canada approximated \$400 million. These hospital operating costs are financed mainly by payments received from patients themselves, by payments on behalf of patients through voluntary prepayment plans, by government prepayment plans and government agencies defraying costs for specific groups of patients, and by government maintenance grants. The relative importance of these income sources varies greatly for different classes of hospitals and in different provinces.

Hospital Expenditures

General and allied special hospitals comprise the largest expenditure group, and have higher costs per patient day than other classes of hospitals. Table 35 below shows that net operating expenditures by general and allied special hospitals totalled \$273 million in 1953; by mental hospitals \$57 million; by tuberculosis sanatoria \$32 million; and by federal hospitals \$40 million. The average cost per patient day was \$11.95 for public general and allied special hospitals⁽¹⁾; \$6.25 for tuberculosis sanatoria; and \$2.70 for mental hospitals - as shown in Table 36.

Since 1946, the rise in operating expenditures of public general and allied special hospitals has been extraordinary. Table 37 shows that the average per diem cost jumped from \$5.16 per day in 1946 to \$11.29 in 1953⁽²⁾ - an increase of 119 per cent. The main causative factor has been price inflation. Like all other segments of the national economy, hospitals have been forced each year to spend increasingly large sums of money to obtain the same goods and services. In addition, however, as pointed out in previous sections, there has been tremendous expansion of special facilities and specialized personnel enabling better diagnosis and treatment at higher cost.

Of the various items that comprise the operating costs of hospitals, wages and salaries is the most significant. Table 38 shows that in 1952, salaries and wages made up 55 per cent of the gross operating expenditure of public general hospitals. Other major items were dietary supplies - 13 per cent, medical supplies - 9 per cent and plant operation and maintenance - 6 per cent.

Wide variations in the average cost per patient day may be observed among the provinces. In 1953, the per diem cost of public general and special hospitals averaged \$7.87 in Prince Edward Island and \$14.14 in British Columbia. It is interesting to note that salaries and wages comprised 32 per cent of gross expenditures in Prince Edward Island and 62 per cent of gross expenditures in British Columbia. In addition to wage and price differentials, other factors affecting provincial variations in cost per patient day are average size of hospitals, standards of hospital care, scope of service provided, and the occupancy rate.

Hospital Income

Methods of financing hospital care have altered significantly during the past decade in Canada. In earlier years the bulk of hospital revenues were derived from paying patients, while assistance for the care of indigents came from municipalities

(1) Based on patient days of adults and children.

(2) Excludes chronic hospitals. Based on patient days of adults, children and newborns.

TABLE 35. - ESTIMATED NET OPERATING EXPENDITURES OF HOSPITALS:
BY CLASS OF HOSPITAL AND BY PROVINCE, 1953

Province	General and Allied Special Hospitals (a)	Mental Hospitals (b)	Tuberculosis Sanatoria (c)	Federal Hospitals (d)	All Hospitals
Nfld.	\$ 4,602,567	\$ 1,302,391	\$ 1,640,774	-	\$ 7,545,752
P.E.I.	1,141,692	338,011	303,157	-	1,782,860
N.S.	8,383,728	1,999,080	1,756,500	-	12,139,308
N.B.	7,381,279	1,421,773	2,206,631	-	11,009,683
Que.	61,228,120	10,770,781	9,178,708	-	81,177,609
Ont.	96,460,487	20,089,876	8,578,358	-	125,128,721
Man.	13,132,997	3,133,220	1,306,584	-	17,572,801
Sask.	18,807,370	5,020,124	2,158,962	-	25,986,456
Alta.	21,238,993	4,352,126	1,275,080	-	26,866,199
B.C.	38,946,889	8,801,625	3,799,519	-	51,548,033
N.W.T.	2,019,347	0	0	-	2,019,347
Canada	\$273,343,489	\$57,229,007	\$32,204,273	\$40,000,000	\$402,776,769 (e)

(a) Based on D.B.S. Hospital Statistics, 1953, Vol. II. Includes an estimated expenditure of \$37,830,988 by non-reporting hospitals. Non-reported expenditures were estimated by multiplying the average per diem cost (based on adults and children patient days) of reporting public hospitals in each province by the difference between estimated total patient days of adults and children in all public and private hospitals (see Table 16) and patient days of adults and children in public hospitals reporting expenditure data.

(b) Based on D.B.S. Mental Health Statistics, 1953, Financial Supplement. Excludes federal mental hospitals

(c) Based on D.B.S. Tuberculosis Statistics, 1953. Excludes federal sanatoria and tuberculosis units in general hospitals

(d) Not available by province. Estimate for Canada based on Public Accounts

(e) Excludes federal hospitals

TABLE 36. OPERATING COST PER PATIENT DAY: BY CLASS OF HOSPITAL
AND BY PROVINCE, 1953

Province	Public General and Allied Special Hospitals (a)	Mental Hospitals	Tuberculosis Sanatoria
Newfoundland	9.61	4.33	6.60
Prince Edward Island	9.38	3.08	6.31
Nova Scotia	10.69	1.95	6.97
New Brunswick	11.50	2.42	7.69
Quebec	10.26	1.89	5.01
Ontario	12.81	2.91	5.33
Manitoba	9.95	2.51	5.53
Saskatchewan	10.15	2.99	7.75
Alberta	12.20	3.02	6.69
British Columbia	15.66	3.95	12.16
Canada (b)	11.38	2.70	6.25

(a) Based on patient days of adults and children only.

(b) Excludes Yukon and the Northwest Territories.

Source: P.B.S. Hospital Statistics, 1953, Mental Hospitals Statistics, 1953, and Tuberculosis Statistics, 1953.

TABLE 37. - OPERATING COST PER PATIENT DAY IN PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS (a): BY PROVINCE, 1946, 1948, 1950, 1951, 1952, 1953

Province	1946	1948	1950	1951	1952	1953
Newfoundland(b)	-	-	-	-	-	8.11
Prince Edward Island	4.08	5.60	5.93	6.42	7.64	7.87
Nova Scotia	4.24	5.72	6.63	8.14	7.57	9.48
New Brunswick	4.63	6.16	7.73	8.44	9.28	10.38
Quebec	5.20	6.91	9.00	8.87	9.02	10.26
Ontario	5.39	7.58	9.21	10.68	11.47	12.29
Manitoba	4.38	5.88	7.41	8.22	9.12	9.65
Saskatchewan	4.57	6.09	7.07	8.01	8.75	9.61
Alberta	4.94	6.40	7.96	8.84	9.10	10.69
British Columbia	6.16	9.00	11.13	12.24	12.50	14.14
Canada(c)	5.16	7.04	8.54	9.60	10.24	11.29

(a) Excludes chronic hospitals. Based on total patient days of adults, children and newborns.

(b) Not available from 1946 to 1952.

(c) Excludes Yukon and the Northwest Territories.

Source: D.B.S. Hospital Statistics, 1953, Vol. II.

TABLE 38 - SELECTED ITEMS AS PERCENTAGE OF GROSS OPERATING EXPENDITURES OF PUBLIC GENERAL HOSPITALS: BY PROVINCE, 1952

Province	Salaries and Wages	Medical Supplies	Amputation	Direct Professional Care	Dietary Supplies	Laundry and Housekeeping	Plant Operation and Maintenance	Other
Nfld.	-	-	-	-	-	-	-	-
P.E.I.	32	9	3	2	20	4	11	19
N.S.	43	10	3	4	19	4	9	8
N.B.	42	11	4	5	18	3	7	10
Que.	48	9	3	6	13	2	7	11
Ont.	57	9	3	4	12	3	6	7
Man.	50	11	3	4	13	4	7	8
Sask.	55	10	2	3	13	3	7	7
Alta.	52	11	(a)	(a)	13	3	4	17
B.C.	52	6	4	2	10	2	5	6
Canada (b)	55	9	3	4	13	3	6	8

(a) Included with "Other".

(b) Excludes Yukon and the Northwest Territories.

Source: D.B.S. Hospital Statistics, 1952, Vol. II.

and philanthropic sources. As hospital care became increasingly expensive, new methods of financing became essential to ease the burden on individual patients and the municipalities. Various voluntary prepayment schemes were devised, four provincial governments developed public prepayment plans and all provinces increased their assistance to hospitals for the care of special groups including indigents.

"The relative importance of government payments differs greatly among general and allied special hospitals, mental hospitals and tuberculosis sanatoria. While paying patients and voluntary plans contribute the major portion of general and allied special hospital income, these sources are of minor significance for tuberculosis sanatoria and mental hospitals. In 1953, federal, provincial and municipal governments contributed 88 per cent of the operating revenue of non-federal tuberculosis sanatoria and 81 per cent of the revenue of mental hospitals.

The distribution of the estimated total income of non-federal general and allied special hospitals (including private hospitals) by source in 1953 is shown below in Tables 39 and 40. Despite the growth of voluntary and government prepayment plans, almost \$100 million or nearly 40 per cent of total income was paid directly to the hospitals by patients.⁽¹⁾ About one-third of this income from patients was in Quebec; about one-third in Ontario; and about one-third in all the other provinces. The percentage of income from paying patients varied from 56 per cent in Quebec and 51 per cent in Prince Edward Island to 16 per cent in Saskatchewan and 15 per cent in Newfoundland.

The growth of voluntary prepayment plans⁽²⁾ offering hospital service benefits through contractual arrangements with hospitals has helped to stabilize hospital finances. Many patients who could not have paid the full costs of hospitalization from their own resources now meet a large part of these costs through prepaid protection. In 1953, about \$56 million or 22 per cent of total hospital income was derived from Blue Cross and other insurance organizations; the proportion would probably reach about 25 per cent if commercial insurance "indemnification" payments to individuals were included. Voluntary prepayment plan payments were relatively most significant in Ontario - 37 per cent and Manitoba - 32 per cent, followed closely by the three Maritime provinces.

The role of government in hospital financing is most extensive in the four provinces which have introduced public hospital care schemes. In 1953, the provincial government provided an estimated 77 per cent of the income of all public and private general and allied special hospitals in Saskatchewan. Equivalent provincial payments in other provinces accounted for 72 per cent of hospital income in Newfoundland; 64 per cent in British Columbia; and 39 per cent in Alberta where the municipalities also contributed 11 per cent.⁽³⁾

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- (1) These figures include payments by patients covered by commercial insurance "indemnification" plans which reimburse the individual rather than the hospital. Insurance company payments, part of which went to individuals, totalled about \$23 million in 1953.
- (2) For a description of these plans see Voluntary Medical and Hospital Insurance in Canada, Dept. of N.H.&W., Research Division, General Series, Memo., No. 9, 1955.
- (3) For detailed information on public plans see Selected Public Hospital and Medical Plans in Canada, Dept. of N.H.&W., Research Division, Social Security Series, Memo. No. 15, 1955.

TABLE 39. - ESTIMATED INCOME OF GENERAL AND ALLIED SPECIAL HOSPITALS:
BY SOURCE OF INCOME AND BY PROVINCE, 1953(a)

Province	Federal Government (b)	Provincial Governments (c)	Municipal Governments (d)	Voluntary Prepayment Plan (e)	Self-Pay Patients (f)	Other	Total
Nfld.	100,000	2,953,000 (g)	0	221,000 (h)	602,000	247,000	4,123,000
P.E.I.	100,000	157,000	10,000	250,000	571,000	34,000	1,122,000
N.S.	254,000	779,000	450,000	2,192,000	3,350,000	442,000	7,467,000
N.B.	125,000	834,000	859,000	1,883,000	3,073,000	122,000	6,896,000
Que.	250,000	9,729,000	1,101,000	10,093,000	35,013,000	4,130,000	58,376,000
Ont.	1,100,000	12,775,000	8,529,000	35,745,000	32,208,000	3,238,000	91,593,000
Man.	154,000	1,424,000	1,168,000	4,008,000	5,229,000	497,000	12,480,000
Sask.	470,000	14,155,000 (i)	323,000	129,000	2,075,000	331,000	18,283,000
Alta.	250,000	8,500,000 (i)	2,300,000 (i)	2,871,000	7,783,000	369,000	21,773,000
B.C.	197,000	23,960,000	247,000	741,000	10,969,000	1,351,000	37,465,000
Canada (j)	3,000,000	75,266,000	15,047,000	55,831,000	98,073,000	10,761,000	259,578,000

(a) Based on D.B.S. Hospital Statistics, 1953, Vol. II except where otherwise indicated. Includes estimates of income by source for non-reporting hospitals based on ratio of reported source income to reported total income in each province. These estimates include private hospitals which do not report income to the Dominion Bureau of Statistics.

(b) Includes payments for individual patients but excludes federal health grant assistance.

(c) Includes payments by Workmen's Compensation Boards, payments by provincial prepayment hospital care schemes, other payments for individual patients and provincial grants.

(d) Includes payments for individual patients and municipal grants.

(e) Includes payments by Blue Cross and other group plans and contracts, including commercial insurance plans which pay hospitals directly, but excluding commercial insurance "indemnification" plans which reimburse individual rather than hospital.

(f) Estimates obtained by subtracting estimated income from all sources except paying patients, from total estimated income. Includes assumption that estimated private hospital income was derived entirely from paying patients in Quebec, Ontario and British Columbia.

(g) Estimate based on data supplied by Newfoundland Department of Health.

(h) Estimate based on data contained in Newfoundland Health Survey Report.

(i) Estimate based on data supplied by Alberta Department of Public Health and data in Alberta Public Accounts. Excludes Yukon and Northwest Territories.

TABLE 40. - PERCENTAGE DISTRIBUTION OF ESTIMATED INCOME OF GENERAL AND ALLIED SPECIAL HOSPITALS: BY SOURCE OF INCOME AND BY PROVINCE, 1953

Province	Federal Government	Provincial Governments	Municipal Governments	Voluntary Prepayment Plans	Self-Pay Patients	Other	Total
Newfoundland	2	72	0	5	15	6	100
Prince Edward Island	9	14	1	22	51	3	100
Nova Scotia	3	10	6	29	45	6	99
New Brunswick	2	12	12	27	45	2	100
Quebec	1	17	2	17	56	7	100
Ontario	1	14	9	37	35	4	100
Manitoba	1	11	9	32	42	4	99
Saskatchewan	3	77	2	1	16	2	101
Alberta	1	39	11	12	36	2	101
British Columbia	1	64	1	2	29	4	101
Canada (a)	1	29	6	22	38	4	100

(a) Excludes Yukon and Northwest Territories.

Source: Derived from Table 39.

In the other six provinces, government contributions may be made on behalf of certain patients such as poliomyelitis cases, to assist in meeting the cost of indigent care, or to offset hospital deficits. Contributions by all levels of government in these provinces varied from 19 to 26 per cent of total income in 1953. Provincial governments were the largest source of income, although the municipalities made significant contributions in New Brunswick, Nova Scotia, Ontario and Manitoba. Hospital maintenance grants by governments are discussed in detail in the following pages.

Hospital Maintenance Grants

Government statutory grants for hospital maintenance and payments on behalf of indigent patients are designed to assist hospitals in meeting their operating expenses. It is generally recognized, however, that despite government assistance, hospitals lose money in providing hospital care to indigents as well as to other public ward patients. Thus, rate structures have been developed so that public ward rates are usually lower than actual cost, while private room rates and charges for special services such as laboratory and x-ray procedures are usually well above the actual costs; generally speaking, the hospital usually breaks even on the semi-private patient. In this way, the provision of funds for the care of public ward patients may be borne partially by the private ward patient and the patient requiring extra services.

Provisions for government financial assistance vary considerably between the provinces. In most provinces, municipalities are required to pay for the hospital treatment of resident indigents at minimum rates set by the province. However, in British Columbia, municipalities make a small per diem grant based on all hospitalized residents. In Newfoundland and to a lesser extent in Saskatchewan, the local areas are almost entirely relieved of the burden of indigent care, while in New Brunswick and Prince Edward Island municipal support is partly optional.

Provincial maintenance payments are linked with public prepaid hospital care schemes in four provinces. Saskatchewan pays the full cost of basic hospital services for beneficiaries under a compulsory province-wide contributory hospital insurance scheme. In British Columbia, the province pays most of the cost of a province-wide hospital care plan, although patients contribute one dollar per patient day. Alberta subsidizes local hospital care programs providing prepaid care on a dollar a day basis, while Newfoundland operates a cottage hospital insurance plan in rural areas.

Statutory grants on behalf of all patients in recognized hospitals are paid by the provinces of British Columbia, Alberta, New Brunswick, Nova Scotia and Prince Edward Island. Grants for all public ward patients are made by Manitoba and Ontario. Quebec and Newfoundland make payments only on behalf of indigents, while Manitoba makes a special extra grant for indigents. Further details on provincial and municipal hospital grants are presented below by province.

Newfoundland. The province of Newfoundland makes payments to certain recognized hospitals on behalf of indigents under treatment at rates fixed by the province. In cottage hospital

districts, the province pays the balance of the cost of hospital operation not covered by the prepaid contributions of beneficiaries. In addition, the operating deficit of the provincially owned St. John's General Hospital is paid by the province.⁽¹⁾

Prince Edward Island. The province of Prince Edward Island makes per diem payments on behalf of all patients including newborns to all hospitals in the province at a rate of one dollar per patient day. The rate of payment was 75 cents per day from 1948 to 1953, and 50 cents per day before 1948. In addition, small flat grants are made by the municipalities of Charlottetown and Summerside to hospitals located within their boundaries.

Nova Scotia. The Provincial Government of Nova Scotia makes a per diem grant for all patients in recognized hospitals, including newborns, pays the operating deficit of the provincially owned Victoria General Hospital and also pays for indigent patients who are not legally recognized as having settlement in any municipality. Since 1948, the per diem grant to recognized hospitals has been at a rate of 45 cents per day for the first 5000 patient days and 30 cents per patient day thereafter; before 1948 the rate was 30 cents for the first 5000 days and 20 cents for each additional day. The maximum provincial payment for indigents without residence in a municipality was set at \$9 per patient day in 1954; previous rates were \$6 a day from 1952 to 1954, \$4 a day between 1949 and 1952, and \$3 a day prior to that time.

Additional support for general hospitals comes from municipalities. Some hospitals are operated by a branch of local government; others have an annual operating deficit guaranteed by the town or municipality, while others receive only the minimum municipal grant of \$500 required to qualify them as a public hospital. In addition, however, each municipality is liable for the hospitalization of indigents having legal settlement at the same rate as the provincial rate for indigents. This rate may not exceed the average per diem cost of hospital care, or in any case \$9 per day from January 1, 1955.

New Brunswick. Since 1952, the province of New Brunswick has made a grant to public hospitals at a rate of 50 cents for each patient day for all patients treated in the hospital. Prior to this time, payment had been made at a rate of 30 cents per patient day up to a total payment of \$1500 to a hospital and thereafter at a rate of 20 cents per patient day. The province makes no special payments for indigents without legal residence in a municipality.

The elective hospitalization of resident indigents is a matter of municipal discretion although when the medically indigent are admitted as emergencies certified by a physician, it is mandatory for the parish of settlement to pay the account. Also, wherever non-resident indigent patients are hospitalized in a local hospital, the municipality of residence is required to pay the cost of treatment. Various arrangements exist between municipalities and local hospitals for the treatment of local indigents. Some municipalities make arrangements for payment based on the per diem cost as determined from audited financial statements; some municipalities make token charity payments of \$500 per annum; some pay bond interest on behalf of the local hospital while others provide no support whatever for indigent patients.

⁽¹⁾ For a description of the Newfoundland Cottage Hospital Scheme see Selected Public Hospital and Medical Plans in Canada, Dept. of N.H.&W., Research Division, Memo. No. 15, Social Security Series, 1955.

Quebec. Under the Quebec Public Charities Act, there is a three-way division of the costs of hospitalization of indigents between the province, the municipality of residence and the hospital. Hospitals in the province are divided into a large number of special groups, and grants to hospitals are based on a sliding scale according to the care provided for patients. Prior to 1952, the province, the municipality of residence and the hospital each assumed one-third of the indigent rate set for each class of hospital by the province. Since 1952, the municipal contribution in rural municipalities has been reduced to 15 per cent of the hospital rate while the province pays 52 per cent of the rate; cities and towns continue to pay one-third of the indigent rate.

General hospitals are classified in three grades with provincial-municipal payments varying from \$4 to \$7.50 per patient day in 1955. The payment for convalescent hospitals is \$2.50 per day for the first 50 days of treatment and \$2 for the next 50 days. Incurables requiring medical treatment are paid for at a rate of \$4 per day while other chronic invalids are paid for according to a rate of \$1.80 per day. Other special payments include \$4 per day up to 20 days for maternity hospitals; \$1.50 per day for newborns; 40 cents a day for children in nurseries; \$1.54 per day for crippled children; \$5.50 a day for communicable disease hospitals and in certain other special hospitals \$6.50 per day for the first 60 days, \$5.50 for the next 60 days and \$4 after 120 days.

Ontario. In Ontario, provincial maintenance grants are paid to recognized public hospitals on the basis of a complex formula devised to extend a measure of assistance to all public ward patients.

Public hospitals are divided into 7 groups (Class A to Class G) established on the basis of a cost study of public ward patient care made in 1943. The average per diem cost of public ward patient care in 1943 for each group was determined, and an amount was established for each group as the statutory minimum per diem payment by each municipality for its indigent patients. The 1943 statutory municipal per diem rate for indigents varied between \$1.50 and \$2.25 per patient day depending upon the class of hospital; these municipal rates were somewhat greater than 50 per cent of the average per diem cost for public ward patients.

The provincial grant formula adopted in 1947 bases grants on the government - recognized public ward bed capacity in relation to the government - recognized bed capacity of the entire hospital, with the public ward bed figure adjusted to the actual occupancy level in the public ward. Thus, the ratio of public ward capacity to total bed capacity is multiplied by the percentage occupancy of the public ward, and the resulting ratio is applied to the difference between the public ward per diem cost in 1943 and the municipal per diem payment for 1943 mentioned above. This calculation establishes the basic hospital per diem grant which is payable by the province.

Because of increasing per diem costs, hospitals are now paid an amount which is calculated by multiplying the 1947 grant by 2.35. In the case of new hospitals or existing hospitals which have increased or decreased the number of beds, the grant is computed by applying the percentage of 235 to the grant which the hospital would have received in 1947. Although the amounts of provincial

grants are calculated as described above they are not permitted to exceed maximum limits set by the government for each hospital group. These basic maximum limits as originally established varied from 60 cents to \$1.00 per day, but were increased by 235 per cent in 1948 in an effort to meet rising hospital costs.

From 1950 to 1953 the province paid a special bonus maintenance grant to all hospitals operating under the Public Hospitals Act, which comprised about 25 per cent of the regular maintenance grant. In 1953, a special rehabilitation grant was distributed on the basis of \$100 per bed for beds not previously assisted by capital grants, and \$400 per bed in relation to beds on which no capital grant had ever been paid; this grant was distributed to public hospitals on the basis of \$300 per bed in 1954. Additional special grants effective since 1951 include 30 cents per visit for medically indigent patients attending organized outpatient departments, 40 cents per day for newborns of indigent mothers, and \$1.40 per day for each public ward patient day in isolation hospitals.

The few hospitals not covered by the grant program continue to receive provincial assistance on the basis formerly in effect, whereby the province made grants for indigent patients at the rate of 75 cents per day up to 60 days, and 50 cents daily thereafter. In the case of indigent patients from unorganized territory, the province makes additional payments comparable to those made by municipalities for their residents.

Although the statutory municipal minimum per diem grants for resident indigents for the year 1943 are used in calculating provincial grants, municipal rates have been increased three times in 1948, 1951 and 1954. Current rates vary from \$3.75 to \$6.00 per day depending upon the class of hospital. Some municipalities also pay the operating deficits of local hospitals.

Manitoba. The province of Manitoba makes various statutory per diem grants to public hospitals. One dollar per patient day is paid on behalf of all public ward patients who are adults and children, and 50 cents per patient day is paid on behalf of newborns. The rate for adults and children was 75 cents per day from 1949 to 1951, and 50 cents per day before that time, while the rate for newborns was 25 cents before 1949. Provincial payment on behalf of any patient is limited to three consecutive months in a year unless the written approval of the Minister of Health is secured for an extension.

Since 1949, the province has also paid a special grant not exceeding a total of \$75,000 per annum to be divided among hospitals providing teaching facilities for the training of medical students. The province also pays for the hospitalization of indigents from unorganized territory at municipal indigent rates mentioned below. In addition, since 1949 the province has made a special grant of 25 cents per patient day on behalf of indigents whether they are the responsibility of the municipality or the province; this special indigent grant was increased to 50 cents in 1952.

Municipalities are liable for the payment of public ward hospital accounts of resident indigents. In 1948, the municipal indigent payment was set as the average cost of

public ward care in the hospital for the preceding year, provided the sum did not exceed \$2 per day for adults and children and \$1 a day for newborns. In 1949, the municipal limit was increased to \$3 per day for adults and children, and in 1951, it was again increased to \$4.75 per day for teaching hospitals, and \$4 a day for other hospitals for adults and children. Municipalities are also required after three weeks notice from the hospital to pay \$2 per patient day for the care of indigent incurables and cases unsuitable for hospital treatment as long as they remain in hospital. This rate was increased to \$4 per day in 1950, and \$6 per day in 1952.

Saskatchewan. General hospital care is provided for all residents of Saskatchewan through a system of hospital care insurance which has been in effect since January 1, 1947. All payments to hospitals under the Plan are made by the province, although municipalities may pay annual insurance premiums on behalf of local relief recipients.(1)

Alberta. In Alberta, the province provides free hospitalization for maternity and free hospitalization for public assistance recipients under special schemes. In addition, the province subsidizes local hospital care programs through which prepaid hospital services are made available on a "dollar a day" basis.(1) Aside from payments made to hospitals on behalf of patients covered by the various public hospitalization schemes, the province makes a grant of 70 cents per patient day to approved hospitals for all resident patients in those hospitals, up to 90 days per patient, and indefinitely thereafter if further hospitalization is required. Municipalities do not make statutory grants for all patients, but pay the public ward charge and extras for indigent residents up to a statutory maximum set at \$400 per year for any one person in 1952. The statutory limit was \$300 from 1949 to 1952, and \$200 before that time. Each municipality is reimbursed by the Department of Public Welfare for 60 per cent of the cost of indigent care based on a flat per diem rate.

British Columbia. Under the British Columbia Hospital Insurance Service, the province pays the cost of public ward care for beneficiaries of the Plan, subject to a "dollar a day charge to the patient. Provincial payments include the former statutory provincial grant of 70 cents per patient day. Municipalities no longer make direct payments to hospitals, but the statutory municipal grant of 70 cents per patient day for each resident patient is paid directly to the British Columbia Hospital Insurance Service.(1)

(1) For a description of public hospital plans in Saskatchewan, Alberta and British Columbia, see Selected Public Hospital and Medical Plans in Canada, Dept. of N.H.&W., Research Division, Memo. No. 15, Social Security Series, 1955.

PUBLICATIONS IN THE SOCIAL SECURITY
AND THE GENERAL SERIES

Research Division,
Department of National Health and Welfare

I. SOCIAL SECURITY SERIES

- * Memorandum No. 1. Mothers' Allowances Legislation in Canada. 1st ed. May 1949, 2nd ed. January, 1955, 85 pp.
- * Memorandum No. 2. Old Age Income Security in New Zealand. March 1950. 41 pp.
- * Memorandum No. 3. Old Age Income Security in Australia. March 1950. 31 pp.
- ___/ Memorandum No. 4. Old Age Income Security in Great Britain. March 1950. 84 pp.
- ___/ Memorandum No. 5. Old Age Income Security in the United States. March 1950. 76 pp.
- ___/ Memorandum No. 6. Old Age Income Security in Selected European Countries. (Denmark, France, Sweden, Switzerland). March 1950. 83 pp.
- O Memorandum No. 7. Social Security in Australia.
- * Memorandum No. 8. Health Insurance in New Zealand. October 1950. 88 pp.
- * Memorandum No. 9. Health Insurance in Denmark. (Revised) March 1952. 67 pp.
- * Memorandum No. 10. Health Insurance in Sweden. January 1952. 76 pp.
- * Memorandum No. 11. Health Insurance in Great Britain, 1911-48. March 1952. 163 pp.
- O Memorandum No. 12. Health Insurance in Norway. Est. 60 pp.
- O Memorandum No. 13. Health Insurance in the Netherlands. Est. 65 pp.
- * Memorandum No. 14. Government Expenditures and Related Data on Health and Social Welfare 1947 to 1953. 2nd ed. June 1955. 84 pp.
- * Memorandum No. 15. Selected Public Hospital and Medical Care Plans in Canada. July 1955. 109 pp.

II. GENERAL SERIES

- ___/ Memorandum No. 1. Survey of Dentists in Canada. 2nd ed., January 1949, 45 pp.
- * Memorandum No. 2. Survey of Physicians in Canada. 3rd ed., Sept. 1948, 4th ed., Sept. 1949, 5th ed., June 1951, 6th ed. April 1955, 36 pp.

- * Memorandum No. 3. Survey of Welfare Positions: Report
April 1954. 182 pp. and appendices.
- * Memorandum No. 4. Voluntary Medical Care Insurance:
A Study of Non-Profit Plans in
Canada, April 1954, 205 pp.
- * Memorandum No. 5. A Study of the Functions and
Activities of Head Nurses in a
General Hospital. May 1954, 1940 pp.
- * Memorandum No. 6. Mental Health Services in Canada,
July 1954, 207 pp.
- * Memorandum No. 7. Changes and Developments in Child
Welfare Services in Canada, 1949-
1953. October 1954, 33 pp.
- * Memorandum No. 8. Survey of Welfare Positions,
Summary of Report. May 1955. 34 pp.
- * Memorandum No. 9. Voluntary Medical and Hospital
Insurance in Canada. August 1955.
61 pp.
- * Memorandum No. 10. Hospitals in Canada. September
1955. 86 pp.
- * Memorandum No. 11. Tuberculosis Services in Canada.
July 1955. 65 pp.
- * Memorandum No. 12. Health Care in Canada Expenditures
And Sources of Revenue, 1953. August
1955, est. 25 pp.

III. OTHER PUBLICATIONS

Bulletins prepared in collaboration with other Divisions
of the Department or other agencies.

- * Survey of Nursing Personnel in Manitoba, October 1952,
59 pp.
- * A suggested Methodology for Fluoridation Surveys in Canada,
July, 1952, 51 pp.
- * Dental Effects of Water Fluoridation, 1954 Report, August
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- / Rehabilitation of Disabled Persons. Background Data for
the National Conference on Rehabilitation, Toronto, Feb.
1 - 3, 1951, 135 pp.
- * Social Security Expenditures in Australia, Canada, Great
Britain, New Zealand and the United States 1949-50 - A
Comparative Study, February, 1954, 42 pp.

Canadian Sickness Survey

- V Special Compilation: No. 1. Family Expenditures for
Health Services (National
Estimates), May, 1953,
13 pp.

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| V | Special Compilation: No. | 2. | Family Expenditures for Health Services by Income Groups (National Estimates), July, 1953, 13 pp. |
| V | Special Compilation: No. | 3. | Family Expenditures for Health Services by Expenditure Group (National Estimates), September, 1953, 56 pp. |
| V | Special Compilation: No. | 4. | Family Expenditures for Health Services (Regional Estimates), January, 1954, 23 pp. |
| V. | Special Compilation: No. | 5. | Volume of Sickness (National Estimates), April, 1954, 24 pp. |
| V | Special Compilation: No. | 6. | Permanent Physical Disabilities (National Estimates), February, 1955, 15 pp. |
| V | Special Compilation: No. | 7. | Incidence and Prevalence of Illness (National Estimates), April, 1955, 20 pp. |

* Available on request. _/ Out of print. 0 In preparation.

V Available from Queen's Printer, 25 cents a copy.

